

**GROUNDWATER MONITORING REPORT  
FIRST QUARTER 2005**

**More for Less Store #21  
940 Petrified Forest Road  
Calistoga, California**

*Submitted to:*

Napa County Department of Environmental Management  
Napa, California

*On behalf of:*

Convenience Acquisition Company LLC  
Sacramento, California

*Prepared by:*

ENVIRON International Corporation  
Emeryville, California

April 15, 2005  
Project No. 03-10605L

# ENVIRON

April 15, 2005

Mr. Bob Matthews  
Convenience Acquisition Company LLC  
3336 Bradshaw Road, Suite 260  
Sacramento, California 95827

**Re:           Groundwater Monitoring Report, First Quarter 2005  
          More For Less Store #21; Calistoga, California  
          ENVIRON Project No. 03-10605L**

Dear Mr. Matthews:

ENVIRON International Corporation ("ENVIRON") is pleased to present this report summarizing the results of groundwater monitoring conducted at Convenience Acquisition Company's More For Less Store #21 located at 940 Petrified Forest Road in Calistoga, California (Figure 1). The report has been prepared in response to a request from the Napa County Department of Environmental Management (DEM) as specified in a letter dated January 20, 2005 addressed to both More For Less and The Customer Company, the previous owner of the site.

The approximately one-acre site consists of a convenience store building, three fuel islands, and associated underground storage tanks, as shown on Figure 2. Convenience Acquisition Company, the current site owner, has operated the More For Less Gas Station and Convenience Store at the site since July 1998. There are five active underground storage tanks (USTs) located in the central portion of the site, including three 12,000-gallon gasoline USTs, one 8,000-gallon diesel UST, and one 520-gallon waste oil UST. Two former USTs for storage of fuels and an associated fuel island were located in the northern corner of the site and removed in 1988 by the previous owner.

This report presents a summary of the site history, subsurface conditions, and groundwater monitoring results for February 2005. A summary of monitoring well construction details is presented in Table 1. The locations of groundwater monitoring wells discussed in this report are shown on Figure 3. Laboratory analytical results for groundwater samples collected during the quarterly monitoring event in February 2005 are in Appendices B and C.

As required by California Underground Storage Tank regulations (CCR Title 23, Section 2729), a site plan and data collected since September 1, 2001, including analytical data, monitoring well survey data, and groundwater level data, have been submitted in Electronic Deliverable Format (EDF) to the California State Water Resources Control Board (SWRQB) Geotracker database.

## **Background**

Prior to purchase by Convenience Acquisition Company, the site was operated as Food and Liquor #168 by The Customer Company. Two former 12,000-gallon USTs located in the northern corner of the site were removed in February 1988 (Kleinfelder 1988). Based on the detection of fuel hydrocarbons in a water sample collected during the tank removal, the Napa County DEM requested that additional site investigation be conducted. In December 1989, three groundwater monitoring wells (MW-1, MW-2 and MW-3) were installed in the vicinity of the former tanks (Dames & Moore 1990). The three wells were sampled in December 1989, and downgradient well MW-3 was sampled again in January 1991. The groundwater samples were tested for total petroleum hydrocarbons (TPH) as gasoline and benzene, toluene, ethylbenzene, and xylenes (BTEX). None of these compounds were detected. Based on these results, the Napa County DEM recommended that the case be closed, and the San Francisco Regional Water Quality Control Board issued a case closure letter dated March 5, 1991.

In July 1998, Convenience Acquisition Company purchased the site from The Customer Company, and the store was renamed More for Less #21. The fuel dispensers and underground fuel delivery lines to the four existing USTs at the site were upgraded during February 2000. During the upgrade activities, Geocon Consultants Inc. (Geocon) of Rancho Cordova, California collected soil samples from the delivery line trench and dispenser island excavations in accordance with a request from the Napa County DEM. TPH-diesel was detected in all ten soil samples collected and the gasoline oxygenate methyl-tert-butyl ether (MTBE) was detected in nine of the ten soil samples collected. TPH-gasoline and BTEX compounds were detected in two or three of the shallow soil samples (Geocon Consultants, Inc. 2000).

Following submittal of Geocon's report dated March 27, 2000, the Napa County DEM issued a letter to Convenience Acquisition Company dated March 29, 2000 requesting that a soil and groundwater investigation be conducted to address the possible release of MTBE at the site. A workplan for a soil and groundwater investigation was prepared by Parker Environmental Services of Pittsburg, California on June 21, 2000 and submitted to the Napa County DEM. Following approval of the workplan by the Napa County DEM in a letter dated October 10, 2000, the plan was implemented in November 2001 by H<sub>2</sub>O Geol of Livermore, California.

The investigation at the site in November 2001 included the installation and development of three new shallow monitoring wells (MW-4, MW-5, and MW-6) and collection of two soil samples from each well boring for chemical analysis. Groundwater levels were measured in all six onsite monitoring wells, and groundwater samples were collected for chemical analysis.

Soil and groundwater samples were analyzed for TPH as gasoline and diesel, BTEX compounds, MTBE, and other fuel oxygenates. Additional quarterly groundwater monitoring events for all six wells were conducted in March 2002 by H<sub>2</sub>O Geol and on a quarterly basis since August 2002 by ENVIRON. Results of these previous investigations were summarized in the *Site Investigation and Groundwater Monitoring Report* (ENVIRON 2002a) and subsequent groundwater monitoring reports (ENVIRON 2002 through 2004).

### Site Subsurface Conditions

In general, the site is underlain by fill over natural alluvial soils. Where present, the fill material is described as pea gravel or engineered fill containing concrete, brick, and wire fragments to a depth ranging from approximately 9 to 10.5 feet below ground surface (bgs). Fill was not reported along the northern side of the site at locations MW-1 and MW-3, where the first soil encountered consisted of silty clay to depths of 6-7 feet bgs. The fill material is underlain by relatively fine-grained deposits consisting of clayey to gravelly silt and silty to gravelly clay extending to depths ranging from approximately 13 to 18 feet bgs. These deposits are underlain by relatively coarse-grained alluvial deposits consisting of sand and gravel. Groundwater elevations fluctuate seasonally. The direction of groundwater flow is toward the southeast, and the depth to water typically ranges between about 7 to 21 feet below ground surface.

### Well Survey Results

All six monitoring wells at the site were surveyed on February 21, 2002 by Renner Surveying and Engineering of Burlingame, California. This survey was conducted relative to a benchmark established at the site with an assumed elevation of 390.00 feet. Wells MW-1, MW-2 and MW-3 were also surveyed following their installation in 1989 by Earl L. Gray of Pleasant Hill, California using a Napa County benchmark identified as BM No. 325 referenced to Mean Sea Level (MSL) datum. The difference between the two surveys is shown below:

Well	Feet, MSL Datum	Feet, 2002 Site Datum	Difference in feet
MW-1	391.90	388.59	3.31
MW-2	392.28	388.99	3.29
MW-3	391.71	388.46	3.25

The average difference between the site datum elevations measured in 2002 and the MSL datum elevations measured in 1989 for these three wells is 3.28 feet. These data indicate that a correction factor of + 3.3 feet could be used to convert the elevations based on the site benchmark to approximate MSL datum elevations, if necessary. However, the 2002 elevations measured relative to the site benchmark are consistent relative to one another and can be used to assess groundwater flow directions and gradient at the site.

During the sampling event on May 15, 2003, it was observed that a concrete sidewalk had been added surrounding the MW-3 well box, the top of which is flush with the new sidewalk. Upon inspection of the well by ENVIRON, the casing appeared to have been newly cut, presumably so that the well box lid could be placed flush with the sidewalk. Renner Surveying and Engineering of Burlingame, California surveyed the elevation of MW-3 on October 17, 2003. This survey was conducted relative to a benchmark established at the site with an assumed elevation of 390.00 feet. The new elevation for MW-3 was measured at 388.29 feet, site datum.

### **Groundwater Occurrence**

Static groundwater levels were measured on February 25, 2005 using an electronic water level probe. The groundwater level measurements are presented along with historic data in Table 2. In general, measured water levels were found to be between depths of 14.20 and 15.18 feet. Water levels were approximately 6.7 feet higher in February 2005 than those recorded in November 2004. The groundwater levels measured in February 2005 are shown on a groundwater table contour map on Figure 4. Consistent with previous quarters, the measured water levels indicate an overall groundwater flow direction toward the east/southeast. Cyrus Creek, which is located about 50 feet south of the site, is dry for much of the year, indicating that groundwater is deeper than the creek bed, and that the creek acts as a discharging stream when it flows during the rainy season. As a result, the potential for groundwater discharge into the creek is very low.

### **Chemical Testing Results**

To characterize current groundwater conditions at the site, ENVIRON collected groundwater samples as part of a quarterly monitoring event conducted in February 2005. Groundwater samples were collected from monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6. The groundwater samples were analyzed for TPH as gasoline and diesel, BTEX compounds, and fuel oxygenates. The results of groundwater analyses are summarized in Table 3, and concentrations of MTBE in groundwater are shown on Figure 5. The field parameter sheets are presented in Appendix A, and the analytical laboratory reports are attached in Appendix B.

Groundwater analytical results have been compared to available federal and California criteria for the chemicals detected. Available water quality criteria include health based Maximum Contaminant Levels (MCLs) for drinking water, and Secondary MCLs based on aesthetic factors such as color, taste, and odor. Although groundwater at the site is not used for drinking water, drinking water criteria are identified as water quality objectives for groundwater by the California Regional Water Quality Control Board.

In February 2005, TPH-gasoline was detected in only one well, MW-1 at a concentration of 69 µg/l. Total xylenes were detected below the MCL for total xylenes in MW-1 at 3 µg/l. TPH-gasoline and BTEX compounds were not detected in samples from other wells at the site in

February 2005. MTBE, TPH-diesel, and other fuel oxygenates including ethanol were not detected in any of the wells in February 2005.

As part of the quality control program, an equipment rinsate blank sample was collected and analyzed to evaluate potential bias introduced to the sample during decontamination procedures, sample collection, and analysis. The equipment blank sample was analyzed for the same constituents as the groundwater samples. All results were not detected.

### **Comparison with Historical Results**

Groundwater monitoring results since November 2001 are shown in Table 3, and MTBE results are presented on Figure 5. The historical data indicate that MTBE concentrations at the site were highly variable during the period from November 2001 through November 2002. The highest concentrations were detected in the two November rounds of sampling (up to 26,400 µg/l), and the lowest concentrations were detected in March 2002 (< 0.50 to 2.7 µg/l).

As of January 9, 2003, the gasoline delivered to facility contains ethanol rather than MTBE. Since then, MTBE has not been detected in wells MW-1, MW-2, and MW-3 located in the northern portion of the site. Wells MW-4, MW-5, and MW-6 are located in the southern portion of the site. In wells MW-4 and MW-5, MTBE results have been either not detected or below MCLs except in the November 2003 round of sampling. The same pattern is observed in well MW-6, with one exception (in May 2004, MTBE was detected at 15.9 µg/l). In November 2003, MTBE was detected above MCLs in wells MW-4, MW-5, and MW-6, but the concentrations were one to two orders of magnitude lower than in November 2001 and November 2002. Other fuel constituents, including TPH-gasoline, benzene, TBA, and TAME, were also detected in one or more wells during November 2003. By November 2004, MTBE and other fuel constituent detections were below MCLs. Ethanol has never been detected in any of the site wells.

The pattern of higher MTBE and other fuel constituent detections in the November rounds of sampling from 2001 to 2003 appears to be related to rising water levels after the start of the rainy season. During the dry season, the groundwater table is about 20 feet deep and occurs in an alluvial sand and gravel layer. This coarse-grained soil unit is overlain by fine-grained silt and clay. Following rain events in the fall, the water table rises high enough to contact the base of the fine-grained soil unit at a depth of about 14 to 15 feet bgs in the southern portion of the site. The detections of MTBE and other fuel constituents in the previous November rounds of sampling suggest that there may be residual fuel constituents in soil pore space at the base of the fine-grained layer. Based on the thirteen rounds of sampling since November 2001, the residual MTBE concentrations appear to be decreasing over time and were below MCLs in November 2004 and February 2005.

### **Offsite Irrigation Well**

At the request of the Napa County DEM, a groundwater sample was collected from the offsite irrigation well located on the Rancho de Calistoga property across Highway 128 southeast of the site. The approximate well location is shown on Figure 3. According to Mr. Jerry Sturr, the former manager of the property, the well is approximately 276 feet deep and is used solely for landscape irrigation.

A groundwater sample was collected from a tap on the well outlet line on February 25, 2005. The sample was analyzed for TPH as gasoline and diesel, BTEX compounds, and fuel oxygenates. All results were not detected. The analytical laboratory report is presented in Appendix C.

The offsite irrigation well was sampled previously in conjunction with eight monitoring events (August 2002 and each monitoring event since August 2003) and tested for the same fuel constituents. Fuel constituents were not detected in samples collected in August 2002 and August 2003. In November 2003, MTBE was detected at a concentration of 6 µg/l; no other compounds were detected. The primary MCL for MTBE is 13 µg/l, and the secondary MCL (based on taste and odor factors) is 5 µg/l. To confirm this result, the well was resampled in December 2003. MTBE was detected, but only at a very low level of 1.1 µg/l, well below both the primary and secondary MCLs. In August 2004, TPH-gasoline was reported at a concentration of 74 µg/l, and total xylenes were reported at 1.3 µg/l. In order to confirm the August 2004 results, the well was sampled again on September 19, 2004 and analyzed for TPH-gasoline and BTEX. An atmospheric blank sample was also collected and analyzed for the same parameters. TPH-gasoline and BTEX were not detected in the sample from the well or in the atmospheric blank sample. Therefore, the reported detections in the August sample are considered suspect. Fuel constituents were not detected in samples collected in February 2004, May 2004, November 2004, and February 2005.

### **Summary**

Based on data from thirteen groundwater monitoring events, concentrations of MTBE in groundwater were highly variable during the period between November 2001 and November 2002. Relatively high concentrations were reported in both November 2001 and November 2002. However, in March 2002 (highest groundwater elevation) and August 2002 (lowest groundwater elevation), MTBE was not detected or was reported at relatively low concentrations. The absence of TPH-gasoline, BTEX, and other fuel oxygenates at more than sporadic and/or low levels did not indicate a liquid fuel release at the site. However, the source(s) of the MTBE in groundwater is not clear. In accordance with its permit, the facility fuel system integrity was tested in 2002, 2003 and 2004, and all fuel system components passed. The most recent testing included pressure decay testing of the gasoline USTs, air to liquid ratio performance of the dispenser nozzles, and testing of the product lines conducted by Tank-Tek on April 6, 2004.

Any potential onsite sources of MTBE were eliminated in January 2003. Since that time, the gasoline delivered to the facility has been formulated with ethanol rather than MTBE. In the first three monitoring events of 2003 (February 2003, May 2003, and August 2003), MTBE was not detected or was reported at low concentrations below MCLs. In November 2003, MTBE was detected in the three site wells near the current USTs but at concentrations an order of magnitude lower than in November 2001 and November 2002. MTBE was not detected in the three wells near the former USTs. In the monitoring events of 2004 (including the November sampling), MTBE was again not detected or reported at low concentrations below MCLs, with the exception of one sample result slightly above the primary MCL. In February 2005, MTBE was not detected in any of the site wells, and ethanol has never been detected in any of the site wells.

The pattern of higher MTBE and other minor fuel constituent detections in the previous November rounds of sampling appears to have been related to rising water levels after the start of the rainy season. During the dry season, the groundwater table is about 20 feet deep and occurs in an alluvial sand and gravel layer. Following rain events in the fall, the water table rises high enough to contact the base of a fine-grained soil unit at a depth of about 14 to 15 feet bgs in the southern portion of the site. The detections of MTBE and other fuel constituents in the November rounds of sampling suggest that there may have been residual fuel constituents in soil pore space at the base of the fine-grained layer. Based on the thirteen rounds of sampling since November 2001, the residual MTBE concentrations appear to be decreasing over time, and current groundwater concentrations are below MCLs.

As discussed above, based on sampling conducted in August 2002 and August 2003, an offsite irrigation well located approximately 160 feet downgradient of the site was not impacted by fuel constituents. Data from two samples collected in November and December 2003 indicated very low concentrations of MTBE below MCLs. However, MTBE and other fuel constituents were not detected in more recent samples from February, May, and November 2004, or February 2005. Low concentrations of TPH-gasoline and xylenes were reported for a sample collected in August 2004 (MTBE and other fuel constituents were not detected). These positive detections were not confirmed by a second sample collected in September 2004 and are therefore considered to be suspect.

In accordance with a Napa County DEM letter dated May 5, 2004, we recommend that an additional round of quarterly monitoring be conducted during Second Quarter (May) 2005 to further evaluate site conditions following the removal of MTBE-containing gasoline from the facility. Because the gasoline delivered to the facility now contains ethanol rather than MTBE, a reporting limit of 50 µg/l will be requested from the analytical laboratory. The offsite irrigation well located at the Rancho de Calistoga property will also be sampled again in May 2005.



Mr. Bob Matthews

- 8 -

April 15, 2005

Please contact us at (510) 655-7400 if you have any questions about this report.

Very truly yours,

John Pekala, P.G. No. 7248  
Manager

Jessica E. Donovan, P.G. No. 3791  
Principal

cc: Mr. John Johnson, The Customer Company  
Mr. Gary Lowe, H2O Geol

**REFERENCES**

- Dames & Moore. 1990. *Preliminary Site Characterization Study, 940 Petrified Forest Road, Calistoga, California*, for The Customer Company. January 30.
- Dames & Moore. 1991. *Down-Gradient Monitoring Well Sampling, 940 Petrified Forest Road, Calistoga, California*, for The Customer Company. January 30.
- ENVIRON International Corporation. 2002a. *Site Investigation and Groundwater Monitoring Report, More for Less Store #21, 940 Petrified Forest Road, Calistoga, California*. July 19.
- ENVIRON International Corporation. 2002b. *Groundwater Monitoring Report, Third Quarter 2002, More for Less Store #21, 940 Petrified Forest Road, Calistoga, California*. October 9.
- ENVIRON International Corporation. 2002c. *Sensitive Receptor Survey, More for Less Store #21, 940 Petrified Forest Road, Calistoga, California*. October 21.
- ENVIRON International Corporation. 2003a. *Groundwater Monitoring Report, Fourth Quarter 2002, More for Less Store #21, 940 Petrified Forest Road, Calistoga, California*. January 17.
- ENVIRON International Corporation. 2003b. *Groundwater Monitoring Report, First Quarter 2003, More for Less Store #21, 940 Petrified Forest Road, Calistoga, California*. April 17.
- ENVIRON International Corporation. 2003c. *Groundwater Monitoring Report, Second Quarter 2003, More for Less Store #21, 940 Petrified Forest Road, Calistoga, California*. July 17, 2003.
- ENVIRON International Corporation. 2003d. *Groundwater Monitoring Report, Third Quarter 2003, More for Less Store #21, 940 Petrified Forest Road, Calistoga, California*. October 17.
- ENVIRON International Corporation. 2004a. *Groundwater Monitoring Report, Fourth Quarter 2003, More for Less Store #21, 940 Petrified Forest Road, Calistoga, California*. January 17, 2004.
- ENVIRON International Corporation. 2004b. *Groundwater Monitoring Report, First Quarter 2004, More for Less Store #21, 940 Petrified Forest Road, Calistoga, California*. May 17, 2004.
- ENVIRON International Corporation. 2004c. *Groundwater Monitoring Report, Second Quarter 2004, More for Less Store #21, 940 Petrified Forest Road, Calistoga, California*. July 16, 2004.
- ENVIRON International Corporation. 2004d. *Groundwater Monitoring Report, Third Quarter 2004, More for Less Store #21, 940 Petrified Forest Road, Calistoga, California*. October 14, 2004.

ENVIRON International Corporation. 2005. *Groundwater Monitoring Report, Fourth Quarter 2004, More for Less Store #21, 940 Petrified Forest Road, Calistoga, California.* January 14, 2005.

Geocon Consultants, Inc. 2000. *Calistoga More for Less, 940 Petrified Road, Calistoga, California, Soil Sampling and Analysis Report.* March 27.

Kleinfelder. 1988. *Data Report – Tank Closure at 940 Petrified Forest Road, Calistoga, California.* May 4.

Parker Environmental Services. 2000. *Work Plan for Subsurface Investigation at More for Less #21, 940 Petrified Forest Road, Calistoga, California.* June 21.

## **TABLES**

**TABLE 1. SUMMARY OF MONITORING WELL CONSTRUCTION DATA**  
**Convenience Acquisition Company, More For Less Store #21**  
**940 Petrified Forest Road; Calistoga, California**

Well Number	Date Installed	Measuring Point Elevation (ft msl)	Depth of Well Elevation (ft sd)	Depth of Well (ft bgs)	Screened Elevation (ft sd)	Screened Interval (ft bgs)	Well Casing			Filter Pack Elevation (ft sd)	Filter Pack Interval (ft bgs)
							Diameter (inches)	Casing Material	Screen Slot Size		
MW-1	12/18/1989	388.59	368.6	20.0	383.6 to 368.6	5 to 20	4	Sch. 40 PVC	0.02"	385.6 to 368.6	3 to 20.0
MW-2	12/18/1989	388.99	364.0	25.0	379.0 to 364.0	10 to 25	4	Sch. 40 PVC	0.02"	381.0 to 364.0	8 to 25.0
MW-3	12/18/1989	388.29	368.5	20.0	383.5 to 368.5	5 to 20	4	Sch. 40 PVC	0.02"	385.5 to 368.5	3 to 20.0
MW-4	11/13/2001	388.54	364.1	24.4	374.5 to 364.5	14 to 24	2	Sch. 40 PVC	0.02"	375.5 to 364.1	13 to 24.4
MW-5	11/13/2001	388.10	364.1	24.0	374.1 to 364.1	14 to 24	2	Sch. 40 PVC	0.02"	375.1 to 364.1	13 to 24.0
MW-6	11/13/2001	387.96	363.7	24.3	374.0 to 364.0	14 to 24	2	Sch. 40 PVC	0.02"	375.0 to 363.7	13 to 24.3

**Notes:**

ft bgs = feet below ground surface

ft sd = feet, 2002 site datum (see Table 2 for explanation)

PVC = polyvinyl chloride

**TABLE 2. SUMMARY OF GROUNDWATER ELEVATIONS**  
**Convenience Acquisition Company, More for Less Store #21**  
**940 Petrified Forest Road; Calistoga, California**

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6	
TOC	388.59		388.99		388.29 <sup>(a)</sup>		388.54		388.10		387.96	
Date	Depth (ft)	Elevation (ft sd)	Depth (ft)	Elevation (ft sd)	Depth (ft)	Elevation (ft sd)	Depth (ft)	Elevation (ft sd)	Depth (ft)	Elevation (ft sd)	Depth (ft)	Elevation (ft sd)
12/29/1999	13.33	375.26	13.54	375.45	13.38	375.08	--	--	--	--	--	--
11/19/2001	11.80	376.79	11.90	377.09	11.95	376.51	11.77	376.77	11.16	376.94	10.90	377.06
3/28/2002	9.35	379.24	8.75	380.24	9.25	379.21	8.75	379.79	8.15	379.95	7.80	380.16
8/15/2002	Dry	--	20.94	368.05	Dry	--	20.55	367.99	20.12	367.98	19.94	368.02
11/12/2002	11.78	376.81	11.79	377.20	11.92	376.54	11.68	376.86	11.11	376.99	10.79	377.17
2/24/2003	9.06	379.53	8.11	380.88	8.81	379.65	8.25	380.29	7.63	380.47	7.18	380.78
5/15/2003	9.13	379.46	8.38	380.61	8.88	379.41	8.54	380.00	7.93	380.17	7.44	380.52
8/20/2003	Dry	--	20.67	368.32	Dry	--	20.27	368.27	19.84	368.26	19.65	368.31
11/21/2003	15.56	373.03	15.82	373.17	15.46	372.83	15.60	372.94	15.05	373.05	14.85	373.11
2/24/2004	8.63	379.96	7.75	381.24	8.32	379.97	8.09	380.45	7.48	380.62	6.91	381.05
5/27/2004	13.65	374.94	13.89	375.10	13.67	374.62	13.74	374.80	13.23	374.87	12.92	375.04
8/24/2004	Dry	--	21.15	367.84	Dry	--	20.8	367.74	20.38	367.72	20.17	367.79
11/19/2004	14.96	373.63	15.18	373.81	14.88	373.41	14.97	373.57	14.50	373.60	14.20	373.76
2/25/2005	8.84	379.75	8.05	380.94	8.55	379.74	8.29	380.25	7.70	380.40	7.12	380.84
Change*		+6.12		+7.13		+6.33		+6.68		+6.80		+7.08

**NOTES:**

TOC indicates top of casing elevation in feet, 2002 site datum.

Depth to groundwater is in feet below top of casing.

Groundwater elevation is in feet above 2002 site datum (ft sd).

\* Difference between two most recent elevations.

(a) The well casing for MW-3 was cut between the February and May 2003 sampling events. Prior to this, groundwater elevations were calculated using the prior surveyed TOC elevation of 388.46 feet, 2002 site datum. Beginning in May 2003, the new surveyed elevation of 388.29 feet, 2002 site datum was used.

Site Datum: Well elevations are based on surveys by Renner Surveying & Engineering conducted in February 2002 and November 2003. These surveys were conducted relative to a temporary benchmark point at the site with an assumed elevation of 390.00 feet. Based on a 1989 survey of wells MW-1 through MW-3 by Earl L. Gray of Pleasant Hill, California using Napa County benchmark No. 325, a correction factor of +3.3 feet should be used to convert the elevations based on the 2002 site benchmark to elevation based on Mean Sea Level datum.

**TABLE 3. SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - Fuel Constituents**  
**Convenience Acquisition Company, More For Less Store #21**  
**940 Petrified Forest Road; Calistoga, California**

Well Name	Screened Interval (ft bgs)	Sample Name	Date	MTBE (µg/L)	TPH-Gasoline (µg/L)	TPH-Diesel (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	Ethanol (µg/L)
<i>Wells Installed near Former Tank Location (December 1989)</i>																	
MW-1	5 - 20	14/168/MW-1	11/19/01	<b>79</b>	<50	<50	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	na
		21/168/MW-1	03/28/02	<0.50	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<1.0	<0.50	<0.50	<0.50	<0.50	na
		Dry	08/15/02	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		011112-21-MW-1-P	11/12/02	<b>89</b>	<50	<50	0.8	<0.5	<0.5	<1.0	<50	<1	<1	3	<1	<1	<100
		030224-21-MW-1-P	02/24/03	<1	<50	<50	<0.5	<0.5	<0.5	<1.0	<50	<1	<1	<1	<1	<1	<100
		030515-21-MW-1-P	05/15/03	<1	<50	<50	<0.5	<0.5	<0.5	<1.0	<50	<1	<1	<1	<1	<1	<100
		Dry	08/21/03	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		031121-21-MW-1-P	11/21/03	<0.5	142	<50	<0.5	<0.5	<0.5	<1.0	<10	<0.5	<1.0	<1.0	<1	<0.5	<100
		040224-21-MW-1-P	02/24/04	<0.5	<50	<50	<0.5	<0.5	<0.5	<1.0	<10	<0.5	<1	<1	<1	<0.5	<100
		040527-21-MW-1-P	05/27/04	<0.5	<50	<50	<0.5	<0.5	<0.5	<1.0	<10	<0.5	<1	<1	<1	<0.5	<50
MW-2	10 - 25	Dry	08/24/04	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		041119-21-MW-1-P	11/19/04	<0.5	<50	<50	<0.5	0.6	0.6	2.2	<10	<0.5	<1	<1	<1	<0.5	<50
		050225-21-MW-1-P	02/25/04	<0.5	69	<50	<0.5	<0.5	<0.5	3	<10	<0.5	<1	<1	<1	<0.5	<50
		14/168/MW-2	11/19/01	<b>24</b>	<50	<50	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	na
		21/168/MW-2	03/28/02	2.7	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<1.0	<0.50	<0.50	<0.50	<0.50	na
		020815-21-MW-2-P	08/15/02	<1	<50	<50	<0.5	<0.5	<0.5	<1.0	<50	<1	<1	<1	<1	<1	<100
		011112-21-MW-2-P	11/12/02	<b>421</b>	<50	<50	<b>5.7</b>	<0.5	<0.5	<1.0	129	<1	<1	17	<1	<1	<100
		030224-21-MW-2-P	02/24/03	<1	<50	<50	<0.5	<0.5	<0.5	<1.0	<50	<1	<1	<1	<1	<1	<100
		030515-21-MW-2-P	05/15/03	<1	<50	<50	<0.5	<0.5	<0.5	<1.0	<50	<1	<1	<1	<1	<1	<100
		030821-21-MW-2-P	08/21/03	<1	55	<50	<0.5	0.7	<0.5	3 U	<50	<1	<1	<1	<1	<1	<100
MW-2	10 - 25	031121-21-MW-2-P	11/21/03	<0.5	92	<50	<0.5	<0.5	<0.5	<1.0	<10	<0.5	<1.0	<1.0	<1	<0.5	<100
		040224-21-MW-2-P	02/24/04	<0.5	<50	<50	<0.5	<0.5	<0.5	<1.0	<10	0.5	<1	<1	<1	<0.5	<100
		040527-21-MW-2-P	05/27/04	<0.5	<50	<50	<0.5	<0.5	<0.5	<1.0	<10	<0.5	<1	<1	<1	<0.5	<50
		040824-21-MW-2-P	08/24/04	<0.5	<50	<50	<0.5	<0.5	<0.5	<1.0	<10	<0.5	<1	<1	<1	<0.5	<50
		041119-21-MW-2-P	11/19/04	<0.5	<50	<50	<0.5	<0.5	<0.5	<1.0	<10	<0.5	<1	<1	<1	<0.5	<50
		050225-21-MW-2-P	02/25/05	<0.5	<50	<50	<0.5	<0.5	<0.5	<1.0	<10	<0.5	<1	<1	<1	<0.5	<50

**TABLE 3. SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - Fuel Constituents**  
**Convenience Acquisition Company, More For Less Store #21**  
**940 Petrified Forest Road; Calistoga, California**

Well Name	Screened Interval (ft bgs)	Sample Name	Date	MTBE (µg/L)	TPH-Gasoline (µg/L)	TPH-Diesel (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	Ethanol (µg/L)
MW-3	5 - 20	14/168/MW-3	11/19/01	22	<50	<50	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	na
		21/168/MW-3	03/28/02	1.0	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<1.0	<0.50	<0.50	<0.50	<0.50	na
		Dry	08/15/02	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		011112-21-MW-3-P	11/12/02	14	<50	<50	<0.5	<0.5	<0.5	<1.0	<50	<1	<1	<1	<1	<1	<100
		030224-21-MW-3-P	02/24/03	<1	<50	<50	<0.5	<0.5	<0.5	<1.0	<50	<1	<1	<1	<1	<1	<100
		030515-21-MW-3-P	05/15/03	<1	<50	<50	<0.5	<0.5	<0.5	<1.0	<50	<1	<1	<1	<1	<1	<100
		Dry	08/21/03	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		031121-21-MW-3-P	11/21/03	<0.5	72	<50	<0.5	<0.5	<0.5	<1.0	<10	<0.5	<1.0	<1.0	<1	<0.5	<100
		040224-21-MW-3-P	02/24/04	<0.5	<50	<50	<0.5	<0.5	<0.5	<1.0	<10	<0.5	<1	<1	<1	<0.5	<100
		040527-21-MW-3-P	05/27/04	<0.5	<50	<50	<0.5	<0.5	<0.5	<1.0	<10	<0.5	<1	<1	<1	<0.5	<50
MW-4	14 - 24	Dry	08/24/04	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		041119-21-MW-3-P	11/19/04	<0.5	<50	<50	<0.5	<0.5	<0.5	<1.0	<10	<0.5	<1	<1	<1	<0.5	<50
		050225-21-MW-3-P	02/25/05	<0.5	<50	<50	<0.5	<0.5	<0.5	<1.0	<10	<0.5	<1	<1	<1	<0.5	<50
		Wells Installed near Current Tank Location (October 2001)															
		14/168/MW-4	11/19/01	8,900	<5,000	<50	<100	<100	<100	<100	<500	<100	<100	<100	<100	<100	na
		21/168/MW-4	03/28/02	<0.50	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<1.0	<0.50	<0.50	<0.50	<0.50	na
		020815-21-MW-4-P	08/15/02	196	82	<50	2.1	<0.5	<0.5	<1.0	<50	<1	<1	<1	<1	<1	<100
		021112-21-MW-4-P	11/12/02	22,690	934	<50	175	<0.5	<0.5	1.6	3,140	<1	<1	870	<1	<1	<100
		021112-21-MW-4-D	11/12/02-Dup	26,400	967	<50	178	<0.5	<0.5	1.7	3,010	<1	<1	859	<1	<1	<100
		030224-21-MW-4-P	02/24/03	<1	<50	<50	<0.5	<0.5	<0.5	<1.0	<50	<1	<1	<1	<1	<1	<100
MW-4	14 - 24	030515-21-MW-4-P	05/15/03	<1	<50	<50	<0.5	<0.5	<0.5	<1.0	<50	<1	<1	<1	<1	<1	<100
		030821-21-MW-4-P	08/21/03	<1	62	<50	0.6	<0.5	<0.5	1.5 U	<50	<1	<1	<1	<1	<1	<100
		031121-21-MW-4-P	11/21/03	1,970	181	<50	33.9	<0.5	<0.5	<1.0	325	<0.5	<1.0	11	<1	<0.5	<100
		040224-21-MW-4-P	02/24/04	<0.5	<50	<50	<0.5	<0.5	<0.5	<1.0	<10	<0.5	<1	<1	<1	<0.5	<100
		040224-21-MW-4-D	02/24/04-Dup	<0.5	<50	<50	<0.5	<0.5	<0.5	<1.0	<10	0.9	<1	<1	<1	<0.5	<100
		040527-21-MW-4-P	05/27/04	<0.5	<50	<50	<0.5	<0.5	<0.5	<1.0	<10	<0.5	<1	<1	<1	<0.5	<50
		040527-21-MW-4-D	5/27/04-Dup	<0.5	<50	<50	<0.5	<0.5	<0.5	<1.0	<10	<0.5	<1	<1	<1	<0.5	<50
		040824-21-MW-4-P	08/24/04	1.6	<50	<50	<0.5	<0.5	<0.5	<1.0	<10	<0.5	<1	<1	<1	<0.5	<50
		041119-21-MW-4-P	11/19/04	10.7	<50	<50	<0.5	<0.5	<0.5	<1.0	<10	<0.5	<1	<1	<1	<0.5	<50
		041119-21-MW-4-D	11/19/04-Dup	11.5	<50	<50	<0.5	<0.5	<0.5	<1.0	<10	<0.5	<1	<1	<1	<0.5	<50
MW-4	14 - 24	050225-21-MW-4-P	02/25/05	<0.5	<50	<50	<0.5	<0.5	<0.5	<1.0	<10	<0.5	<1	<1	<1	<0.5	<50
		050225-21-MW-4-D	2/25/05-Dup	<0.5	<50	<50	<0.5	<0.5	<0.5	<1.0	<10	<0.5	<1	<1	<1	<0.5	<50



**TABLE 3. SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - Fuel Constituents**  
**Convenience Acquisition Company, More For Less Store #21**  
**940 Petrified Forest Road; Calistoga, California**

Well Name	Screened Interval (ft bgs)	Sample Name	Date	MTBE (µg/L)	TPH-Gasoline (µg/L)	TPH-Diesel (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	Ethanol (µg/L)
MW-5	14 - 24	14/168/MW-5	11/19/01	300	<250	<50	7.5	<5.0	<5.0	<5.0	<25	<5.0	<5.0	<5.0	<5.0	<5.0	na
		21/168/MW-5	03/28/02	0.51	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<1.0	<0.50	<0.50	<0.50	<0.50	na
		020815-21-MW-5-P	08/15/02	<1	80	<50	2.3	<0.5	<0.5	<1.0	<50	<1	<1	<1	<1	<1	<100
		020815-21-MW-5-D	8/15/02-Dup	<1	114	<50	2.4	1.9	1.2	6.4	<50	<1	<1	<1	<1	<1	<100
		021112-21-MW-5-P	11/12/02	243	62	<50	14	<0.5	<0.5	<1.0	74	<1	<1	7	<1	<1	<100
		030224-21-MW-5-P	02/24/03	<1	<50	<50	<0.5	<0.5	<0.5	<1.0	<50	<1	<1	<1	<1	<1	<100
		030515-21-MW-5-P	05/15/03	<1	<50	<50	<0.5	<0.5	<0.5	<1.0	<50	<1	<1	<1	<1	<1	<100
		030821-21-MW-5-P	08/21/03	<1	<50	<50	<0.5	<0.5	<0.5	<1.0	<50	<1	<1	<1	<1	<1	<100
		031121-21-MW-5-P	11/21/03	72	100	<50	9.8	<0.5	<0.5	<1.0	<10	<0.5	<1.0	<1.0	<1	<0.5	<100
		040224-21-MW-5-P	02/24/04	<0.5	<50	<50	<0.5	<0.5	<0.5	<1.0	<10	<0.5	<1	<1	<1	<0.5	<100
		040527-21-MW-5-P	05/27/04	<0.5	<50	<50	<0.5	<0.5	<0.5	<1.0	<10	<0.5	<1	<1	<1	<0.5	<50
		040824-21-MW-5-P	08/24/04	<0.5	<50	<50	<0.5	<0.5	<0.5	<1.0	<10	<0.5	<1	<1	<1	<0.5	<50
		041119-21-MW-5-P	11/19/04	2	<50	<50	<0.5	<0.5	<0.5	<1.0	<10	<0.5	<1	<1	<1	<0.5	<50
		050225-21-MW-5-P	02/25/05	<0.5	<50	<50	<0.5	<0.5	<0.5	<1.0	<10	<0.5	<1	<1	<1	<0.5	<50
MW-6	14 - 24	14/168/MW-6	11/19/01	1,900	<2,500	54 *	<50	<50	<50	<50	<250	<50	<50	<50	<50	<50	na
		21/168/MW-6	03/28/02	0.67	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<1.0	<0.50	<0.50	<0.50	<0.50	na
		020815-21-MW-6-P	08/15/02	233	143	<50	5.4	<0.5	<0.5	<1.0	<50	<1	<1	<1	<1	<1	<100
		021112-21-MW-6-P	11/12/02	13,600	219	<50	52.4	<0.5	<0.5	<1.0	5,840	<1	<1	208	<1	<1	<100
		030224-21-MW-6-P	02/24/03	4	<50	<50	<0.5	<0.5	<0.5	<1.0	<50	<1	<1	<1	<1	<1	<100
		030224-21-MW-6-D	2/24/03-Dup	3	<50	<50	<0.5	<0.5	<0.5	<1.0	<50	<1	<1	<1	<1	<1	<100
		030515-21-MW-6-P	05/15/03	<1	<50	<50	<0.5	<0.5	<0.5	<1.0	<50	<1	<1	<1	<1	<1	<100
		030515-21-MW-6-D	5/15/03-Dup	<1	<50	<50	<0.5	<0.5	<0.5	<1.0	<50	<1	<1	<1	<1	<1	<100
		030821-21-MW-6-P	08/21/03	4	<50	<50	<0.5	<0.5	<0.5	<1.0	<50	<1	<1	<1	<1	<1	<100
		030821-21-MW-6-D	8/21/03-Dup	4	<50	<50	<0.5	<0.5	<0.5	<1.0	<50	<1	<1	<1	<1	<1	<100
		031121-21-MW-6-P	11/21/03	250	73	<50	<0.5	<0.5	<0.5	<1.0	<10	<0.5	<1.0	2.9	<1	<0.5	<100
		031121-21-MW-6-D	11/21/03-Dup	268	78	<50	<0.5	<0.5	<0.5	<1.0	<10	<0.5	<1.0	3.2	<1	<0.5	<100
		040224-21-MW-6-P	02/24/04	<0.5	<50	<50	<0.5	<0.5	<0.5	<1.0	<10	<0.5	<1	<1	<1	<0.5	<100
		040527-21-MW-6-P	05/27/04	15.9	<50	<50	<0.5	<0.5	<0.5	<1.0	<10	0.6	<1	<1	<1	<0.5	<50
		040824-21-MW-6-P	08/24/04	<0.5	<50	<50	<0.5	<0.5	<0.5	<1.0	<10	<0.5	<1	<1	<1	<0.5	<50
		040824-21-MW-6-D	8/24/04-Dup	<0.5	<50	<50	<0.5	<0.5	<0.5	<1.0	<10	<0.5	<1	<1	<1	<0.5	<50
		041119-21-MW-6-P	11/19/04	1.3	<50	<50	<0.5	<0.5	<0.5	<1.0	<10	<0.5	<1	<1	<1	<0.5	<50
		050225-21-MW-6-P	02/25/05	<0.5	<50	<50	<0.5	<0.5	<0.5	<1.0	<10	<0.5	<1	<1	<1	<0.5	<50

**TABLE 3. SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - Fuel Constituents**  
**Convenience Acquisition Company, More For Less Store #21**  
**940 Petrified Forest Road; Calistoga, California**

Well Name	Screened Interval (ft bgs)	Sample Name	Date	MTBE (µg/L)	TPH-Gasoline (µg/L)	TPH-Diesel (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	Ethanol (µg/L)
-----------	----------------------------	-------------	------	-------------	---------------------	-------------------	----------------	----------------	----------------------	----------------------	------------	-------------	-------------	-------------	----------------	------------	----------------

**Notes:**

MTBE = Methyl-tert-butyl ether

TPH = Total petroleum hydrocarbons, analyzed using EPA Method 8015M.

Total Xylenes = o-xylene, m-xylene and p-xylene

(ft bgs) = feet below ground surface

(µg/L) = micrograms per liter, or parts per billion

<xx = Analyte not detected above the indicated value

na = not analyzed

\* = For this result, the laboratory indicated that the hydrocarbon reported did not match the pattern of their diesel standard.

"--" indicates data not available because wells MW-1 and MW-3 were dry on August 15, 2002, August 21, 2003 and August 24, 2004 and therefore could not be sampled.

"U" indicates data are qualified due to a detection in an associated equipment blank (1.5U means <1.5 µg/L).

Groundwater samples were collected on 11/19/01 and 3/28/02 by H2O Geol of Livermore, California. Chemical testing was conducted by STL Chromalab of Pleasanton, California.

Groundwater samples were collected on 8/15/02, 11/12/02, 2/24/03, 5/15/03, 8/21/03, 11/21/03, 2/24/04, 5/27/04, 8/24/04, 11/19/04, and 2/25/05 by ENVIRON. Chemical testing was conducted by North State Environmental Laboratory of South San Francisco, California.

Results above California and federal Maximum Contaminant Levels (MCLs) for drinking water are shown in bold.

TBA = Tert-butyl alcohol

DIPE = Di-isopropyl ether

ETBE = Ethyl-tert-butyl ether

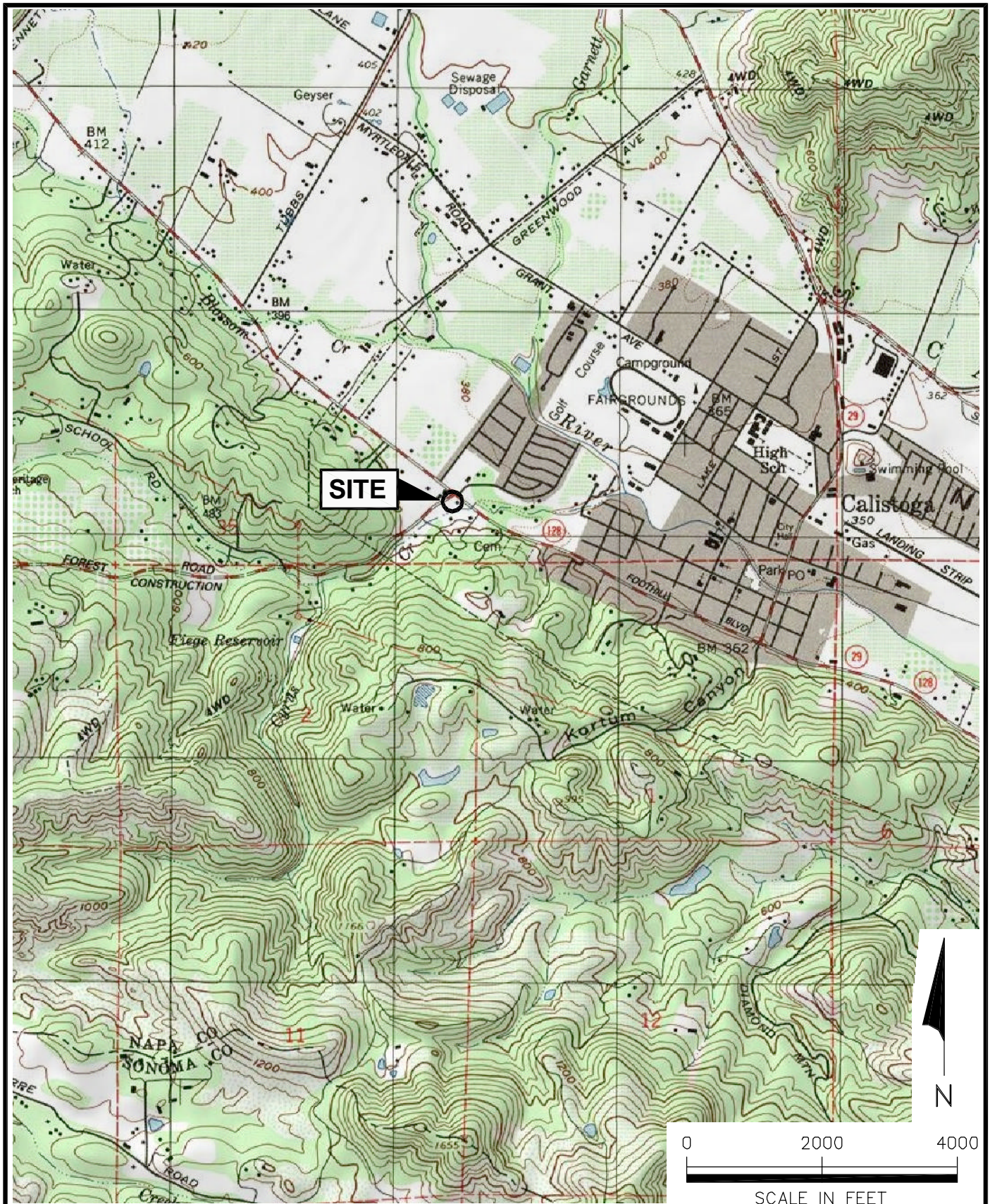
TAME = Tert-amyl methyl ether

1,2-DCA = 1,2-Dichloroethane

EDB = Ethylene dibromide

## FIGURES





SOURCE: USGS Map 7.5 Min Series (Topographic) CALISTOGA QUAD, California, 1993.

**ENVIRON**

6001 Shellmound St., Suite 700, Emeryville, CA 94608

## Site Location Map

940 Petrified Forest Road; Calistoga, California

Figure

**1**

Drafter: RS

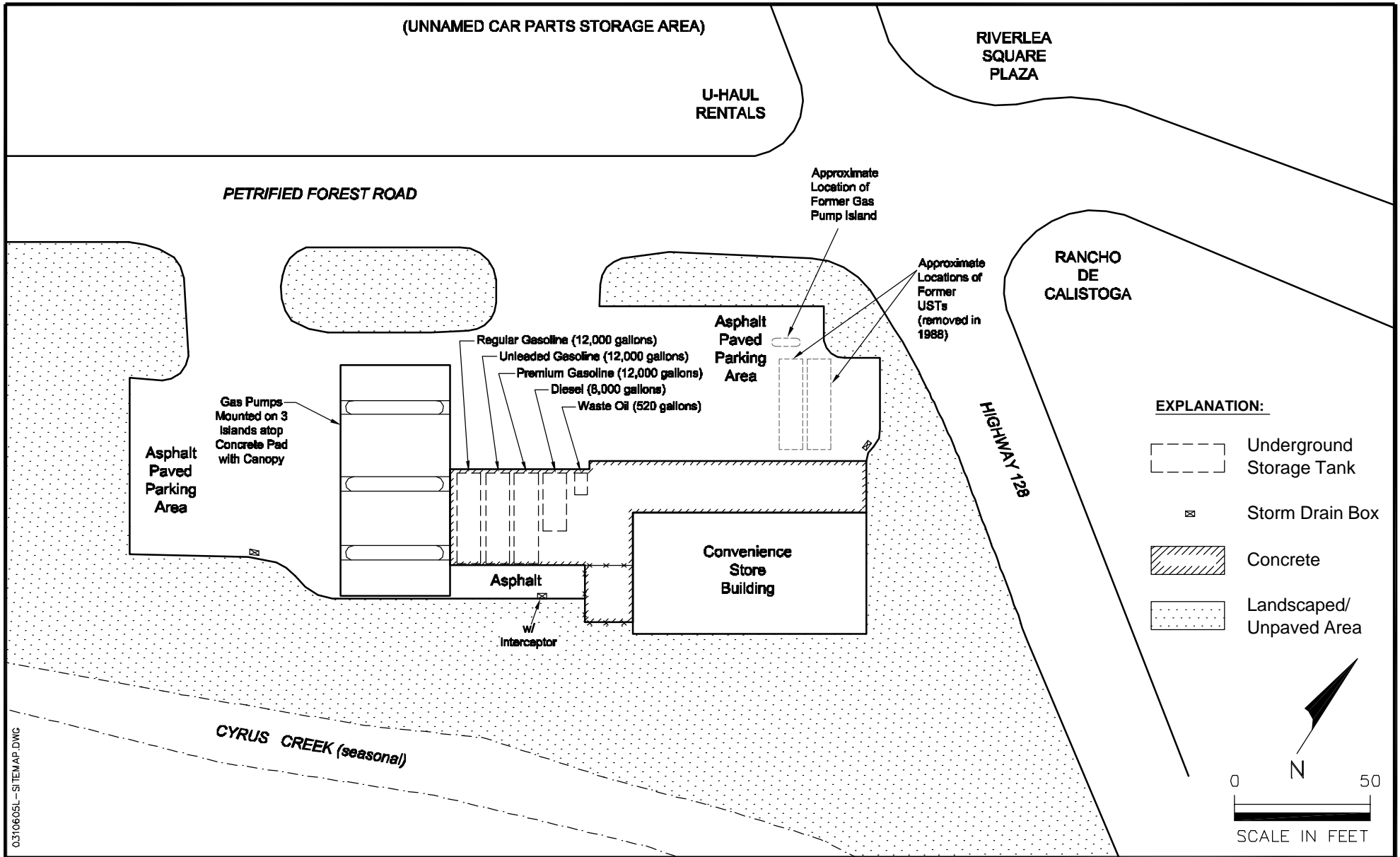
Date: 4/6/05

Contract Number: 03-10605L

Approved:

Revised:





0310605L-SITEMAP.DWG

**ENVIRON**

6001 Shellmound St., Suite 700, Emeryville, CA 94608

Drafter: RS

Date: 4/6/05

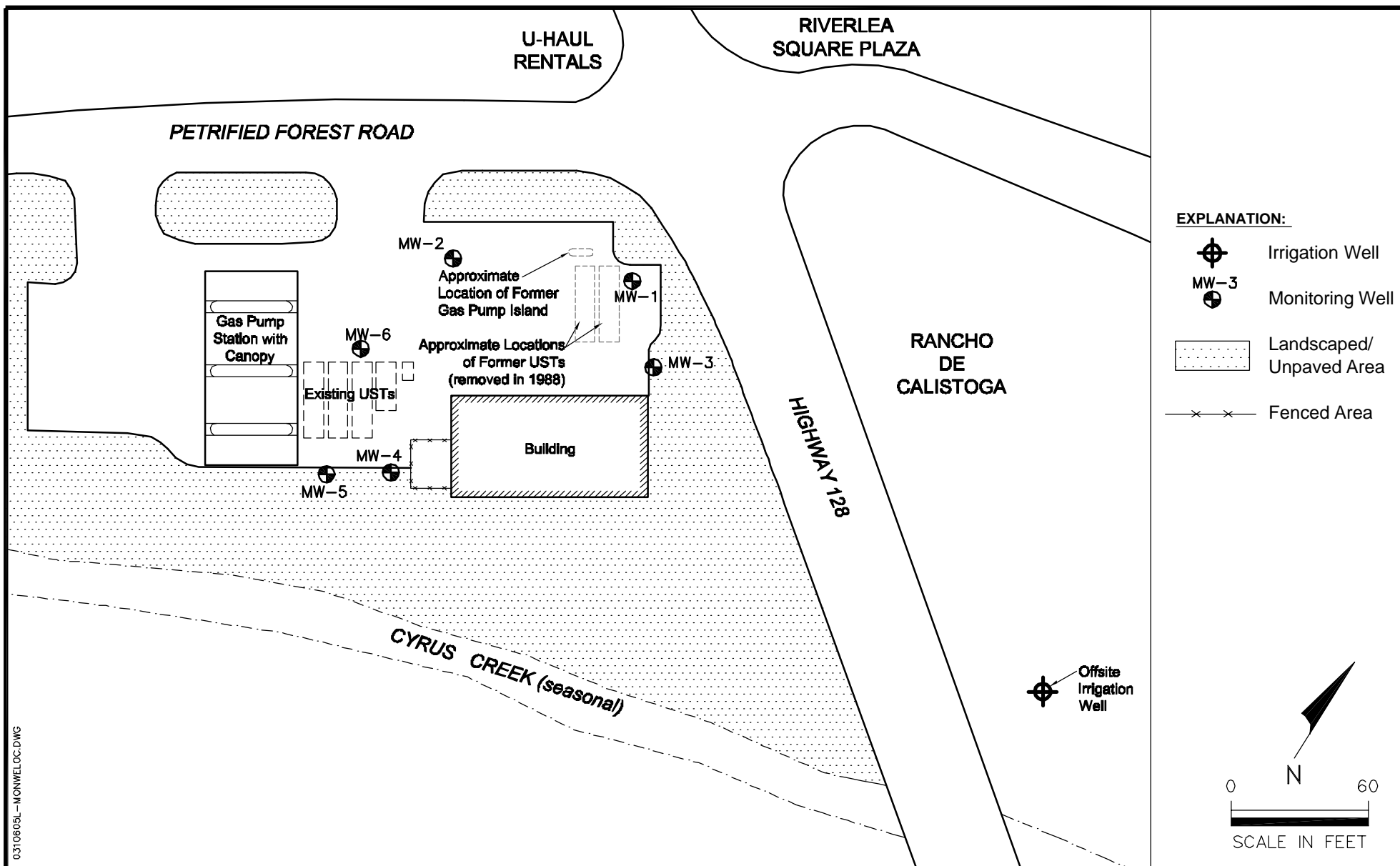
Contract Number: 03-10605L

Approved:

Revised:

Figure

**2**



**ENVIRON**

6001 Shellmound St., Suite 700, Emeryville, CA 94608

### Well Location Map

Convenience Acquisition Company, More for Less Store #21  
940 Petrified Forest Road; Calistoga, California

Figure

**3**

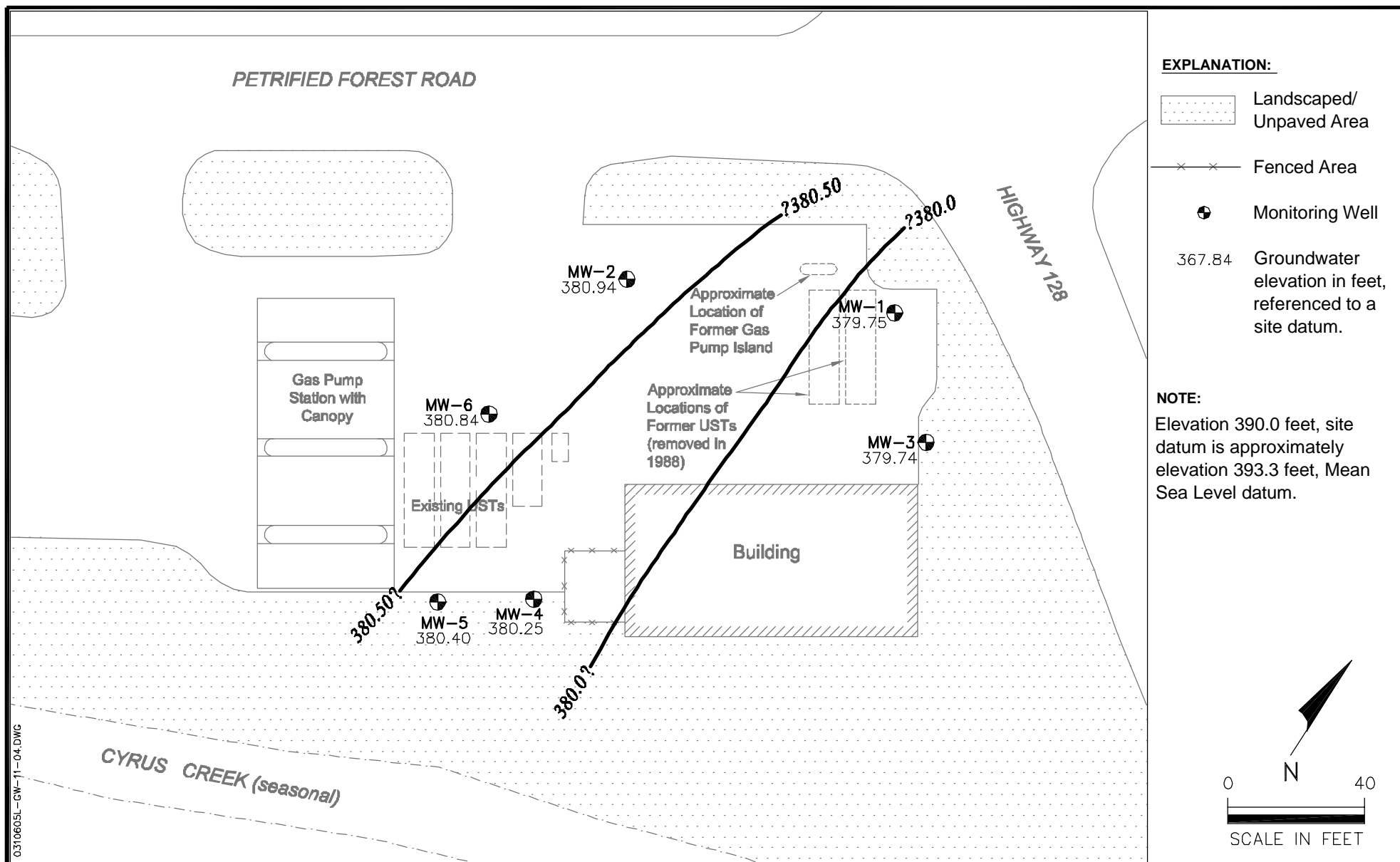
Drafter: RS

Date: 4/6/05

Contract Number: 03-10605L

Approved:

Revised:



0310605L-GW-11-04.DWG

**ENVIRON**

6001 Shellmound St., Suite 700, Emeryville, CA 94608

### Groundwater Table Contour Map - February 25, 2005

Convenience Acquisition Company, More for Less Store #21  
940 Petrified Forest Road; Calistoga, California

Figure

**4**

Drafter: RS

Date: 4/6/05

Contract Number: 03-10605L

Approved:

Revised:

PETRIFIED FOREST ROAD

MW-6	
11/01	1,900
3/02	0.67
8/02	233
11/02	13,600
2/03	4
5/03	<1
8/03	4
11/03	268
2/04	<0.5
5/04	15.9
8/04	<0.5
11/04	1.3
2/05	<0.5

MW-6

MW-2	
11/01	24
3/02	2.7
8/02	<1
11/02	421
2/03	<1
5/03	<1
8/03	<1
11/03	<0.5
2/04	<0.5
5/04	<0.5
8/04	<0.5
11/04	<0.5
2/05	<0.5

MW-2

MW-1	
11/01	79
3/02	<0.50
8/02	Dry
11/02	89
2/03	<1
5/03	<1
8/03	Dry
11/03	<0.5
2/04	<0.5
5/04	<0.5
8/04	Dry
11/04	<0.5
2/05	<0.5

MW-1

MW-3	
11/01	22
3/02	1.0
8/02	Dry
11/02	14
2/03	<1
5/03	<1
8/03	Dry
11/03	<0.5
2/04	<0.5
5/04	<0.5
8/04	Dry
11/04	<0.5
2/05	<0.5

MW-3

MW-5	
11/01	300
3/02	0.51
8/02	<1
11/02	243
2/03	<1
5/03	<1
8/03	<1
11/03	72
2/04	<0.5
5/04	<0.5
8/04	<0.5
11/04	2
2/05	<0.5

MW-5

MW-4	
11/01	8,900
3/02	<0.50
8/02	196
11/02	26,400
2/03	<1
5/03	<1
8/03	<1
11/03	1,970
2/04	<0.5
5/04	<0.5
8/04	1.6
11/04	11.5
2/05	<0.5

MW-4

Gas Pump Islands

Existing USTs

Approximate Location of Former Gas Pump Island

Approximate Locations of Former USTs (removed in 1988)

Building

**EXPLANATION:**

Monitoring Well

Landscaped/Unpaved Area

Fenced Area

Well Name  
Month/Year Sampled

MW-1	11/01	79
	3/02	<0.50

MTBE concentrations are in µg/L (parts per billion)

0 30  
SCALE IN FEET

Figure

5

**ENVIRON**

6001 Shellmound St., Suite 700, Emeryville, CA 94608

**MTBE Concentrations in Groundwater**

Convenience Acquisition Company, More for Less Store #21  
940 Petrified Forest Road, Calistoga, California

Drafter: RS

Date: 4/6/05

Contract Number: 03-10605L

Approved:

Revised:



## **APPENDIX A**

### **Field Documentation Water Purging and Sampling Logs**

# ENVIRON

PRELIMINARY FIELD DRAFT

## WATER PURGING AND SAMPLING LOG

Counsel in Health and Environmental Science

REVIEW PENDING

5820 Shellmound St., Suite 700

Emeryville, California 94608

PROJECT NAME

CAC

CONTRACT NUMBER

03-10605 L

WELL NO:

MW-1

SAMPLING DATE

7/25/05

P.M./SAMPLER(S)

B Proud

EQUIPMENT MODEL/TYPE	SERIAL NO.	DATE CALIBRATED	TEMP (°C)	STANDARD/ACTUAL
<u>Myra Ultramite</u>	<u>607201</u>	<u>2-25-05</u>	<u>12.2 °C</u>	<u>pH 7.10, 7.0, 10.0, 7.0</u> <u>3900 µS / 3900 µS</u>
<u>Hach Turbidity</u>	<u>021200029147</u>	<u>2-25-05</u>	<u>—</u>	<u>5, 300 NTU</u>

PURGING/SAMPLING METHOD

Positive air displacement

EQUIPMENT CLEANING METHOD(S)

Steam Clean w/ DI Water

PURGE WATER DISPOSAL METHOD

Drums

WELL NUMBER OR SAMPLING LOCATION MW-1

WELL CASING RADIUS (CR) (in) 2"

TOTAL DEPTH (TD) OF WELL (ft) 70.55

DEPTH TO WATER (DTW) (ft) 8.84

CASING VOLUME (gal) = (TD-DTW) (CR)<sup>2</sup> (.163) = 7.6

### PURGING DATA

PURGING START TIME 1054

PURGING RATE (gpm) ~1 gpm

TIME/GALLONS SINCE START	TEMP (°C)	pH	CONDUCTIVITY (µmhos/cm)	TURBIDITY (NTU)	OTHER
<u>1101 / 5.0</u>	<u>15.9</u>	<u>6.1</u>	<u>149</u>	<u>12</u>	
<u>1108 / 10.0</u>	<u>16.3</u>	<u>6.2</u>	<u>150</u>	<u>10</u>	
<u>1115 / 15.0</u>	<u>16.2</u>	<u>6.2</u>	<u>150</u>	<u>9</u>	
<u>1121 / 19.0</u>	<u>16.5</u>	<u>6.2</u>	<u>149</u>	<u>8</u>	
<u>1128 / 23.0</u>	<u>16.7</u>	<u>6.2</u>	<u>149</u>		

PURGING STOP TIME 1128

CASING VOLUMES PURGED 3

GALLONS PURGED 23.0

SAMPLING TIME 1135

OBSERVATIONS/COMMENTS

LABORATORY NAME NSE

SAMPLE I.D. 050225-21-MW-1-P

# ENVIRON

PRELIMINARY FIELD DRAFT

REVIEW PENDING

## WATER PURGING AND SAMPLING LOG

Counsel in Health and Environmental Science

5820 Shellmound St., Suite 700

Emeryville, California 94608

PROJECT NAME

CAC

CONTRACT NUMBER

03-10605 L

WELL NO:

mw-2

SAMPLING DATE

2-25-01

P.M./SAMPLER(S)

B Proud

EQUIPMENT MODEL/TYPE

SERIAL NO.

DATE  
CALIBRATED

TEMP (°C)

STANDARD/ACTUAL

See mw-1

PURGING/SAMPLING METHOD

Positive air displacement

EQUIPMENT CLEANING METHOD(S)

Steam Clean w/ DI water

PURGE WATER DISPOSAL METHOD

Drains

WELL NUMBER OR SAMPLING LOCATION

mw-2

WELL CASING RADIUS (CR) (in)

2 2"

TOTAL DEPTH (TD) OF WELL (ft)

24.11

DEPTH TO WATER (DTW) (ft)

8.05

CASING VOLUME (gal) = (TD-DTW) (CR)<sup>2</sup> (.163) =

10.4

### PURGING DATA

PURGING START TIME

1138

PURGING RATE (gpm)

~1 gpm

TIME/GALLONS SINCE START	TEMP (°C)	pH	CONDUCTIVITY (µmhos/cm)	TURBIDITY (NTU)	OTHER
1148 / 7.0	16.0	6.3	153	11	
1158 / 14.0	16.2	6.3	136	8	
1208 / 21.0	16.3	6.3	135	7	
1214 / 26.0	16.4	6.3	134	7	
1221 / 31.5	16.3	6.3	136	7	

PURGING STOP TIME

1221

GALLONS PURGED

31.5

CASING VOLUMES PURGED

3

SAMPLING TIME

1230

OBSERVATIONS/COMMENTS

LABORATORY NAME

NSE

SAMPLE I.D.

050225-21-mw-2-P

# ENVIRON

Counsel in Health and Environmental Science  
5820 Shellmound St., Suite 700  
Emeryville, California 94608

PRELIMINARY FIELD DRAFT

REVIEW PENDING

## WATER PURGING AND SAMPLING LOG

PROJECT NAME

CAC

CONTRACT NUMBER

03-10605 L

WELL NO:

MW-3

SAMPLING DATE

2/25/05

P.M./SAMPLER(S)

B Pond

EQUIPMENT MODEL/TYPE

SERIAL NO.

DATE  
CALIBRATED

TEMP (°C)

STANDARD/ACTUAL

See MW-1

PURGING/SAMPLING METHOD

Positive air displacement / disp Builer

EQUIPMENT CLEANING METHOD(S)

Steam Clean w/ DI water

PURGE WATER DISPOSAL METHOD

Drums

WELL NUMBER OR SAMPLING LOCATION

MW-3

WELL CASING RADIUS (CR) (in)

2

TOTAL DEPTH (TD) OF WELL (ft)

20.00

DEPTH TO WATER (DTW) (ft)

8.55

CASING VOLUME (gal) = (TD-DTW) (CR)<sup>2</sup> (.163) =

7.4

### PURGING DATA

PURGING START TIME

10:07

PURGING RATE (gpm)

~ 1.0 gpm/min

TIME/GALLONS  
SINCE START

TEMP (°C)

pH

CONDUCTIVITY  
(µmhos/cm)

TURBIDITY  
(NTU)

OTHER

1014 / 5.0

15.5

5.6

160

10

1022 / 10.0

15.7

6.0

164

8

1030 / 15.0

15.8

6.1

175

7

1035 / 19.0

15.9

6.1

178

6

1040 / 22.5

16.0

6.1

177

7

PURGING STOP TIME

1040

CASING VOLUMES PURGED

3

GALLONS PURGED

22.5

SAMPLING TIME

1045

OBSERVATIONS/COMMENTS

LABORATORY NAME

NSE

SAMPLE I.D.

050225-21-MW-3-P

# ENVIRON

Counsel in Health and Environmental Science  
5820 Shellmound St., Suite 700  
Emeryville, California 94608

PRELIMINARY FIELD DRAFT  
REVIEW PENDING

## WATER PURGING AND SAMPLING LOG

PROJECT NAME CAL  
CONTRACT NUMBER 03-10605 L

WELL NO: MW-4  
SAMPLING DATE 2/25/05  
P.M./SAMPLER(S) B. Prun

EQUIPMENT MODEL/TYPE	SERIAL NO.	DATE CALIBRATED	TEMP (°C)	STANDARD/ACTUAL
<u>See MW-1</u>				

PURGING/SAMPLING METHOD positive air displacement  
EQUIPMENT CLEANING METHOD(S) Steam Clean w/ P. water  
PURGE WATER DISPOSAL METHOD Drum

WELL NUMBER OR SAMPLING LOCATION MW-4  
WELL CASING RADIUS (CR) (in) 1"  
TOTAL DEPTH (TD) OF WELL (ft) 24.32  
DEPTH TO WATER (DTW) (ft) 8.24  
CASING VOLUME (gal) = (TD-DTW) (CR)<sup>2</sup> (.163) = 2.6

### PURGING DATA

PURGING START TIME	PURGING RATE (gpm)	TIME/GALLONS SINCE START	TEMP (°C)	pH	CONDUCTIVITY (µmhos/cm)	TURBIDITY (NTU)	OTHER
<u>1333</u>	<u>~1 gpm</u>	<u>1336/2.0</u>	<u>15.1</u>	<u>6.5</u>	<u>109</u>	<u>71000</u>	
		<u>1339/3.5</u>	<u>15.0</u>	<u>6.4</u>	<u>110</u>	<u>398</u>	
		<u>1341/5.0</u>	<u>14.9</u>	<u>6.4</u>	<u>110</u>	<u>109</u>	
		<u>1343/6.5</u>	<u>14.9</u>	<u>6.4</u>	<u>110</u>	<u>90</u>	
		<u>1345/8.0</u>	<u>14.9</u>	<u>6.4</u>	<u>110</u>	<u>82</u>	

PURGING STOP TIME 1345 CASING VOLUMES PURGED 3  
GALLONS PURGED 8.0 SAMPLING TIME 1355  
OBSERVATIONS/COMMENTS DUP (050225-21-MW-4-D) (1400)

LABORATORY NAME NSE SAMPLE I.D. 050225-21-MW-4-P

Counsel in Health and Environmental Science

5820 Shellmound St., Suite 700

Emeryville, California 94608

PROJECT NAME

CAC

CONTRACT NUMBER

03-10605L

WELL NO:

mw-5

SAMPLING DATE

2/25/05

P.M./SAMPLER(S)

B Pump

EQUIPMENT MODEL/TYPE

SERIAL NO.

DATE  
CALIBRATED

TEMP (°C)

STANDARD/ACTUAL

See mw-1

PURGING/SAMPLING METHOD

Positive air displacement

EQUIPMENT CLEANING METHOD(S)

Steam Clean w/ DI water

PURGE WATER DISPOSAL METHOD

Drum

WELL NUMBER OR SAMPLING LOCATION

mw-5

WELL CASING RADIUS (CR) (in)

1

TOTAL DEPTH (TD) OF WELL (ft)

23.90

DEPTH TO WATER (DTW) (ft)

2.70

CASING VOLUME (gal) = (TD-DTW) (CR)<sup>2</sup> (.163) =

2.6

## PURGING DATA

PURGING START TIME

1234

PURGING RATE (gpm)

~1 gpm

TIME/GALLONS  
SINCE START

TEMP (°C)

pH

CONDUCTIVITY  
(µmhos/cm)TURBIDITY  
(NTU)

OTHER

1237 / 1.5

15.2

6.5

114

589

1240 / 3.5

15.0

6.4

113

117

1242 / 5.0

14.9

6.4

133

73

1244 / 6.5

14.9

6.4

131

59

1246 / 8.0

14.9

6.4

132

48

PURGING STOP TIME

1246

CASING VOLUMES PURGED

3

GALLONS PURGED

8.0

SAMPLING TIME

12.55

OBSERVATIONS/COMMENTS

MS/MSD

LABORATORY NAME

NSE

SAMPLE I.D.

050225-21-mw-5-P

# ENVIRON

PRELIMINARY FIELD DRAFT

REVIEW PENDING

## WATER PURGING AND SAMPLING LOG

Counsel in Health and Environmental Science

5820 Shellmound St., Suite 700

Emeryville, California 94608

WELL NO:

MW-6

PROJECT NAME

CAL

SAMPLING DATE

2/25/01

CONTRACT NUMBER

03-10605L

P.M./SAMPLER(S)

B. Probst

EQUIPMENT MODEL/TYPE

SERIAL NO.

DATE  
CALIBRATED

TEMP (°C)

STANDARD/ACTUAL

See MW-1

PURGING/SAMPLING METHOD

Positive air displacement

EQUIPMENT CLEANING METHOD(S)

Steam Clean w/ DI water

PURGE WATER DISPOSAL METHOD

Drum

WELL NUMBER OR SAMPLING LOCATION

MW-6

WELL CASING RADIUS (CR) (in)

1"

TOTAL DEPTH (TD) OF WELL (ft)

24.15

DEPTH TO WATER (DTW) (ft)

7.12CASING VOLUME (gal) = (TD-DTW) (CR)<sup>2</sup> (.163) =2.7

### PURGING DATA

PURGING START TIME

1309

PURGING RATE (gpm)

~1 gpmTIME/GALLONS  
SINCE START

TEMP (°C)

pH

CONDUCTIVITY  
(µmhos/cm)TURBIDITY  
(NTU)

OTHER

1312 / 2.015.56.7126710001315 / 4.015.76.31234051317 / 5.515.76.31231021319 / 7.015.66.3122891321 / 8.515.76.312279

PURGING STOP TIME

1321

CASING VOLUMES PURGED

3

GALLONS PURGED

8.5

SAMPLING TIME

1330

OBSERVATIONS/COMMENTS

EB (050225-21-MW-6-E)Time 13:00

LABORATORY NAME

NSG

SAMPLE I.D.

050225-21-MW-6-P

## **APPENDIX B**

### **Analytical Laboratory Report for Onsite Monitoring Wells**



## Laboratory Report Project Overview

IDF 1.2a

Laboratory:	North State Environmental, South San Francisco, CA
Lab Report Number:	05-0286
Project Name:	CAC #03-10605L
Work Order Number:	05-0286
Control Sheet Number:	T0605500132

## Case Narrative

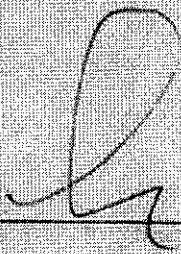
North State Environmental, South San Francisco, CA

Report Date: 03/09/2005  
Report Number: 05-0286

Project: CAC #03-10605L  
Order #: 05-0286

Eight water samples were received under chain of custody control for analysis of diesel and gasoline range hydrocarbons by method 8015B and BTEX by method 8021B and fuel oxygenates by method 8260B. All QA/QC criteria were met with the exception of the surrogate recovery level for 1,2-dichloroethane-d4 in the matrix spike duplicate, which was outside of limits. The surrogate recoveries were within the limits for the laboratory spike and laboratory spike duplicate set for these runs, and the data was reported, with the laboratory note added to the report for the MSD.

Approved by: \_\_\_\_\_



Date: \_\_\_\_\_

April 10, 2005

## Report Summary

Labreport	Sampid	Labsampid	Mtrx	QC	Anmcode	Exmcode	Logdate	Extdate	Anadate	Lablotctl	Run	Sub
05-0286	050225-21-MW-1-P	05-0286-01	W	CS	8260FA	SW5030B	02/25/200 5	03/04/200 5	03/04/200 5	03045MLIST	1	
05-0286	050225-21-MW-1-P	05-0286-01	W	CS	CATFH	SW3510	02/25/200 5	03/01/200 5	03/03/200 5	03025TPHDW	1	
05-0286	050225-21-MW-1-P	05-0286-01	W	CS	SW8020F	SW5030B	02/25/200 5	03/02/200 5	03/02/200 5	03025GBXW1	1	
05-0286	050225-21-MW-2-P	05-0286-02	W	CS	8260FA	SW5030B	02/25/200 5	03/04/200 5	03/04/200 5	03045MLIST	1	
05-0286	050225-21-MW-2-P	05-0286-02	W	CS	CATFH	SW3510	02/25/200 5	03/01/200 5	03/03/200 5	03025TPHDW	1	
05-0286	050225-21-MW-2-P	05-0286-02	W	CS	SW8020F	SW5030B	02/25/200 5	03/02/200 5	03/02/200 5	03025GBXW1	1	
05-0286	050225-21-MW-4-D	05-0286-05	W	CS	8260FA	SW5030B	02/25/200 5	03/04/200 5	03/04/200 5	03045MLIST	1	
05-0286	050225-21-MW-4-D	05-0286-05	W	CS	CATFH	SW3510	02/25/200 5	03/01/200 5	03/03/200 5	03025TPHDW	1	
05-0286	050225-21-MW-4-D	05-0286-05	W	CS	SW8020F	SW5030B	02/25/200 5	03/02/200 5	03/02/200 5	03025GBXW1	1	
05-0286	050225-21-MW-4-P	05-0286-04	W	CS	8260FA	SW5030B	02/25/200 5	03/04/200 5	03/04/200 5	03045MLIST	1	
05-0286	050225-21-MW-4-P	05-0286-04	W	CS	CATFH	SW3510	02/25/200 5	03/01/200 5	03/03/200 5	03025TPHDW	1	
05-0286	050225-21-MW-4-P	05-0286-04	W	CS	SW8020F	SW5030B	02/25/200 5	03/02/200 5	03/02/200 5	03025GBXW1	1	
05-0286	050225-21-MW-5-P	05-0286-06	W	CS	8260FA	SW5030B	02/25/200 5	03/04/200 5	03/04/200 5	03045MLIST	1	
05-0286	050225-21-MW-5-P	05-0286-06	W	CS	CATFH	SW3510	02/25/200 5	03/01/200 5	03/03/200 5	03025TPHDW	1	
05-0286	050225-21-MW-5-P	05-0286-06	W	CS	SW8020F	SW5030B	02/25/200 5	03/02/200 5	03/02/200 5	03025GBXW1	1	
05-0286	050255-21-MW-3-P	05-0286-03	W	CS	8260FA	SW5030B	02/25/200 5	03/04/200 5	03/04/200 5	03045MLIST	1	
05-0286	050255-21-MW-3-P	05-0286-03	W	CS	CATFH	SW3510	02/25/200 5	03/01/200 5	03/03/200 5	03025TPHDW	1	
05-0286	050255-21-MW-3-P	05-0286-03	W	CS	SW8020F	SW5030B	02/25/200 5	03/02/200 5	03/02/200 5	03025GBXW1	1	
05-0286	050255-21-MW-6-E	05-0286-08	W	CS	8260FA	SW5030B	02/25/200 5	03/04/200 5	03/04/200 5	03045MLIST	1	
05-0286	050255-21-MW-6-E	05-0286-08	W	CS	CATFH	SW3510	02/25/200 5	03/01/200 5	03/03/200 5	03025TPHDW	1	
05-0286	050255-21-MW-6-E	05-0286-08	W	CS	SW8020F	SW5030B	02/25/200	03/02/200	03/02/200	03025GBXW1	1	

## Report Summary

Labreport	Sampid	Labsampid	Mtrx	QC	Anmcode	Exmcode	Logdate	Extdate	Anadate	Lablotctl	Run Sub
05-0286	050255-21-MW-6-P	05-0286-07	W	CS	8260FA	SW5030B	5 02/25/200	5 03/04/200	5 03/04/200	03045MLIST	1
05-0286	050255-21-MW-6-P	05-0286-07	W	CS	CATFH	SW3510	5 02/25/200	5 03/01/200	5 03/03/200	03025TPHDW	1
05-0286	050255-21-MW-6-P	05-0286-07	W	CS	SW8020F	SW5030B	5 02/25/200	5 03/02/200	5 03/02/200	03025GBXW1	1
		05-0286-07	W	NC	8260FA	SW5030B	5 //	5 03/04/200	5 03/04/200	03045MLIST	1
		BLK	W	LB1	SW8020F	SW5030B	5 //	5 03/02/200	5 03/02/200	03025GBXW1	1
		VBLK	W	LB1	8260FA	SW5030B	5 //	5 02/24/200	5 03/04/200	03045MLIST	1
		WBLK	W	LB1	CATFH	SW3510	5 //	5 03/01/200	5 03/02/200	03025TPHDW	1
		0286-06 MS	W	MS1	CATFH	SW3510	5 //	5 03/01/200	5 03/03/200	03025TPHDW	1
		0286-07MS	W	MS1	8260FA	SW5030B	5 //	5 03/04/200	5 03/04/200	03045MLIST	1
		0286-08MS	W	MS1	SW8020F	SW5030B	5 //	5 03/02/200	5 03/02/200	03025GBXW1	1
		0286-06 MSD	W	SD1	CATFH	SW3510	5 //	5 03/01/200	5 03/03/200	03025TPHDW	1
		0286-07MSD	W	SD1	8260FA	SW5030B	5 //	5 03/04/200	5 03/04/200	03045MLIST	1
		0286-08MSD	W	SD1	SW8020F	SW5030B	5 //	5 03/02/200	5 03/02/200	03025GBXW1	1

Lab Report No.: 05-0286 Date: 03/09/2005

Page: 1

Project Name: CAC #03-10605L		Analysis: Volatile Organic Compounds by GC/MS Fuel	
Project No: 05-0286		Method: 8260FA	
		Prep Meth: SW5030B	
Field ID: 050225-21-MW-1-P		Lab Samp ID: 05-0286-01	
Descr/Location: MW-1		Rec'd Date: 02/28/2005	
Sample Date: 02/25/2005		Prep Date: 03/04/2005	
Sample Time: 1135		Analysis Date: 03/04/2005	
Matrix: Water		QC Batch: 03045MLIST	
Basis: Wet		Notes:	

Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Methyl-tert-butyl ether (MTBE)	0.342	0.5 PQL		ND	UG/L	1
Ethyl tert-butyl ether (ETBE)	0.258	1. PQL		ND	UG/L	1
tert-Amyl methyl ether (TAME)	0.358	1. PQL		ND	UG/L	1
Di-isopropyl ether (DIPE)	0.251	0.5 PQL		ND	UG/L	1
tert-Butyl alcohol (TBA)	3.250	10. PQL		ND	UG/L	1
1,2-Dichloroethane	0.217	1. PQL		ND	UG/L	1
1,2-Dibromoethane	0.356	0.5 PQL		ND	UG/L	1
Ethanol (EtOH)	23.425	50. PQL		ND	UG/L	1

SURROGATE AND INTERNAL STANDARD RECOVERIES:						
4-Bromofluorobenzene		85-115	SLSA		102%	1
Toluene-d8		85-115	SLSA		103%	1
Dibromofluoromethane		85-115	SLSA		100%	1
1,2-Dichloroethane-d4		85-115	SLSA		99%	1

Approved by: \_\_\_\_\_

Date: \_\_\_\_\_

Lab Report No.: 05-0286 Date: 03/09/2005

Page: 2

Project Name: CAC #03-10605L		Analysis: Volatile Organic Compounds by GC/MS Fuel	
Project No: 05-0286		Method: 8260FA	
		Prep Meth: SW5030B	
Field ID: 050225-21-MW-2-P		Lab Samp ID: 05-0286-02	
Descr/Location: MW-2		Rec'd Date: 02/28/2005	
Sample Date: 02/25/2005		Prep Date: 03/04/2005	
Sample Time: 1230		Analysis Date: 03/04/2005	
Matrix: Water		QC Batch: 03045MLIST	
Basis: Wet		Notes:	

Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Methyl-tert-butyl ether (MTBE)	0.342	0.5 PQL		ND	UG/L	1
Ethyl tert-butyl ether (ETBE)	0.258	1. PQL		ND	UG/L	1
tert-Amyl methyl ether (TAME)	0.358	1. PQL		ND	UG/L	1
Di-isopropyl ether (DIPE)	0.251	0.5 PQL		ND	UG/L	1
tert-Butyl alcohol (TBA)	3.250	10. PQL		ND	UG/L	1
1,2-Dichloroethane	0.217	1. PQL		ND	UG/L	1
1,2-Dibromoethane	0.356	0.5 PQL		ND	UG/L	1
Ethanol (EtOH)	23.425	50. PQL		ND	UG/L	1

SURROGATE AND INTERNAL STANDARD RECOVERIES:						
4-Bromofluorobenzene	85-115	SLSA	107%			1
Toluene-d8	85-115	SLSA	104%			1
Dibromofluoromethane	85-115	SLSA	103%			1
1,2-Dichloroethane-d4	85-115	SLSA	106%			1

Approved by: \_\_\_\_\_

Date: \_\_\_\_\_

Lab Report No.: 05-0286 Date: 03/09/2005

Page: 3

Project Name: CAC #03-10605L		Analysis: Volatile Organic Compounds by GC/MS Fuel	
Project No: 05-0286		Method: 8260FA	
		Prep Meth: SW5030B	
Field ID: 050255-21-MW-3-P		Lab Samp ID: 05-0286-03	
Descr/Location: MW-3		Rec'd Date: 02/28/2005	
Sample Date: 02/25/2005		Prep Date: 03/04/2005	
Sample Time: 1045		Analysis Date: 03/04/2005	
Matrix: Water		QC Batch: 03045MLIST	
Basis: Wet		Notes:	

Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Methyl-tert-butyl ether (MTBE)	0.342	0.5 PQL		ND	UG/L	1
Ethyl tert-butyl ether (ETBE)	0.258	1. PQL		ND	UG/L	1
tert-Amyl methyl ether (TAME)	0.358	1. PQL		ND	UG/L	1
Di-isopropyl ether (DIPE)	0.251	0.5 PQL		ND	UG/L	1
tert-Butyl alcohol (TBA)	3.250	10. PQL		ND	UG/L	1
1,2-Dichloroethane	0.217	1. PQL		ND	UG/L	1
1,2-Dibromoethane	0.356	0.5 PQL		ND	UG/L	1
Ethanol (EtOH)	23.425	50. PQL		ND	UG/L	1

SURROGATE AND INTERNAL STANDARD RECOVERIES:						
4-Bromofluorobenzene		85-115	SLSA		102%	1
Toluene-d8		85-115	SLSA		103%	1
Dibromofluoromethane		85-115	SLSA		105%	1
1,2-Dichloroethane-d4		85-115	SLSA		109%	1

Approved by: \_\_\_\_\_

Date: \_\_\_\_\_

Lab Report No.: 05-0286 Date: 03/09/2005

Page: 4

Project Name: CAC #03-10605L		Analysis: Volatile Organic Compounds by GC/MS Fuel	
Project No: 05-0286		Method: 8260FA	
		Prep Meth: SW5030B	
Field ID: 050225-21-MW-4-D		Lab Samp ID: 05-0286-05	
Descr/Location: MW-4		Rec'd Date: 02/28/2005	
Sample Date: 02/25/2005		Prep Date: 03/04/2005	
Sample Time: 1400		Analysis Date: 03/04/2005	
Matrix: Water		QC Batch: 03045MLIST	
Basis: Wet		Notes:	

Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Methyl-tert-butyl ether (MTBE)	0.342	0.5 PQL		ND	UG/L	1
Ethyl tert-butyl ether (ETBE)	0.258	1. PQL		ND	UG/L	1
tert-Amyl methyl ether (TAME)	0.358	1. PQL		ND	UG/L	1
Di-isopropyl ether (DIPE)	0.251	0.5 PQL		ND	UG/L	1
tert-Butyl alcohol (TBA)	3.250	10. PQL		ND	UG/L	1
1,2-Dichloroethane	0.217	1. PQL		ND	UG/L	1
1,2-Dibromoethane	0.356	0.5 PQL		ND	UG/L	1
Ethanol (EtOH)	23.425	50. PQL		ND	UG/L	1

SURROGATE AND INTERNAL STANDARD RECOVERIES:						
4-Bromofluorobenzene		85-115	SLSA		101%	1
Toluene-d8		85-115	SLSA		102%	1
Dibromofluoromethane		85-115	SLSA		105%	1
1,2-Dichloroethane-d4		85-115	SLSA		105%	1

Approved by: \_\_\_\_\_

Date: \_\_\_\_\_



Lab Report No.: 05-0286 Date: 03/09/2005

Page: 5

Project Name: CAC #03-10605L		Analysis: Volatile Organic Compounds by GC/MS Fuel	
Project No: 05-0286		Method: 8260FA	
		Prep Meth: SW5030B	
Field ID: 050225-21-MW-4-P		Lab Samp ID: 05-0286-04	
Descr/Location: MW-4		Rec'd Date: 02/28/2005	
Sample Date: 02/25/2005		Prep Date: 03/04/2005	
Sample Time: 1355		Analysis Date: 03/04/2005	
Matrix: Water		QC Batch: 03045MLIST	
Basis: Wet		Notes:	

Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Methyl-tert-butyl ether (MTBE)	0.342	0.5	PQL	ND	UG/L	1
Ethyl tert-butyl ether (ETBE)	0.258	1.	PQL	ND	UG/L	1
tert-Amyl methyl ether (TAME)	0.358	1.	PQL	ND	UG/L	1
Di-isopropyl ether (DIPE)	0.251	0.5	PQL	ND	UG/L	1
tert-Butyl alcohol (TBA)	3.250	10.	PQL	ND	UG/L	1
1,2-Dichloroethane	0.217	1.	PQL	ND	UG/L	1
1,2-Dibromoethane	0.356	0.5	PQL	ND	UG/L	1
Ethanol (EtOH)	23.425	50.	PQL	ND	UG/L	1

SURROGATE AND INTERNAL STANDARD RECOVERIES:						
4-Bromofluorobenzene		85-115	SLSA	101%		1
Toluene-d8		85-115	SLSA	103%		1
Dibromofluoromethane		85-115	SLSA	104%		1
1,2-Dichloroethane-d4		85-115	SLSA	105%		1

Approved by: \_\_\_\_\_

Date: \_\_\_\_\_

Lab Report No.: 05-0286 Date: 03/09/2005

Page: 6

Project Name: CAC #03-10605L		Analysis: Volatile Organic Compounds by GC/MS Fuel				
Project No: 05-0286		Method: 8260FA				
		Prep Meth: SW5030B				
Field ID: 050225-21-MW-5-P		Lab Samp ID: 05-0286-06				
Descr/Location: MW-5		Rec'd Date: 02/28/2005				
Sample Date: 02/25/2005		Prep Date: 03/04/2005				
Sample Time: 1255		Analysis Date: 03/04/2005				
Matrix: Water		QC Batch: 03045MLIST				
Basis: Wet		Notes:				
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Methyl-tert-butyl ether (MTBE)	0.342	0.5 PQL		ND	UG/L	1
Ethyl tert-butyl ether (ETBE)	0.258	1. PQL		ND	UG/L	1
tert-Amyl methyl ether (TAME)	0.358	1. PQL		ND	UG/L	1
Di-isopropyl ether (DIPE)	0.251	0.5 PQL		ND	UG/L	1
tert-Butyl alcohol (TBA)	3.250	10. PQL		ND	UG/L	1
1,2-Dichloroethane	0.217	1. PQL		ND	UG/L	1
1,2-Dibromoethane	0.356	0.5 PQL		ND	UG/L	1
Ethanol (EtOH)	23.425	50. PQL		ND	UG/L	1
SURROGATE AND INTERNAL STANDARD RECOVERIES:						
4-Bromofluorobenzene		85-115 SLSA		102%		1
Toluene-d8		85-115 SLSA		103%		1
Dibromofluoromethane		85-115 SLSA		104%		1
1,2-Dichloroethane-d4		85-115 SLSA		105%		1

Approved by: \_\_\_\_\_

Date: \_\_\_\_\_

Lab Report No.: 05-0286 Date: 03/09/2005

Page: 7

Project Name: CAC #03-10605L		Analysis: Volatile Organic Compounds by GC/MS Fuel	
Project No: 05-0286		Method: 8260FA	
		Prep Meth: SW5030B	
Field ID: 050255-21-MW-6-P		Lab Samp ID: 05-0286-07	
Descr/Location: MW-6		Rec'd Date: 02/28/2005	
Sample Date: 02/25/2005		Prep Date: 03/04/2005	
Sample Time: 1330		Analysis Date: 03/04/2005	
Matrix: Water		QC Batch: 03045MLIST	
Basis: Wet		Notes:	

Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Methyl-tert-butyl ether (MTBE)	0.342	0.5 PQL		ND	UG/L	1
Ethyl tert-butyl ether (ETBE)	0.258	1. PQL		ND	UG/L	1
tert-Amyl methyl ether (TAME)	0.358	1. PQL		ND	UG/L	1
Di-isopropyl ether (DIPE)	0.251	0.5 PQL		ND	UG/L	1
tert-Butyl alcohol (TBA)	3.250	10. PQL		ND	UG/L	1
1,2-Dichloroethane	0.217	1. PQL		ND	UG/L	1
1,2-Dibromoethane	0.356	0.5 PQL		ND	UG/L	1
Ethanol (EtOH)	23.425	50. PQL		ND	UG/L	1

SURROGATE AND INTERNAL STANDARD RECOVERIES:						
4-Bromofluorobenzene	85-115	SLSA		105%		1
Toluene-d8	85-115	SLSA		104%		1
Dibromofluoromethane	85-115	SLSA		107%		1
1,2-Dichloroethane-d4	85-115	SLSA		115%		1

Approved by: \_\_\_\_\_

Date: \_\_\_\_\_

Lab Report No.: 05-0286 Date: 03/09/2005

Page: 8

Project Name: CAC #03-10605L		Analysis: Volatile Organic Compounds by GC/MS Fuel	
Project No: 05-0286		Method: 8260FA	
		Prep Meth: SW5030B	
Field ID: 050255-21-MW-6-E		Lab Samp ID: 05-0286-08	
Descr/Location: QCEB-6		Rec'd Date: 02/28/2005	
Sample Date: 02/25/2005		Prep Date: 03/04/2005	
Sample Time: 1300		Analysis Date: 03/04/2005	
Matrix: Water		QC Batch: 03045MLIST	
Basis: Wet		Notes:	

Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Methyl-tert-butyl ether (MTBE)	0.342	0.5	PQL	ND	UG/L	1
Ethyl tert-butyl ether (ETBE)	0.258	1.	PQL	ND	UG/L	1
tert-Amyl methyl ether (TAME)	0.358	1.	PQL	ND	UG/L	1
Di-isopropyl ether (DIPE)	0.251	0.5	PQL	ND	UG/L	1
tert-Butyl alcohol (TBA)	3.250	10.	PQL	ND	UG/L	1
1,2-Dichloroethane	0.217	1.	PQL	ND	UG/L	1
1,2-Dibromoethane	0.356	0.5	PQL	ND	UG/L	1
Ethanol (EtOH)	23.425	50.	PQL	ND	UG/L	1

SURROGATE AND INTERNAL STANDARD RECOVERIES:						
4-Bromofluorobenzene		85-115	SLSA	102%		1
Toluene-d8		85-115	SLSA	101%		1
Dibromofluoromethane		85-115	SLSA	107%		1
1,2-Dichloroethane-d4		85-115	SLSA	112%		1

Approved by: \_\_\_\_\_

Date: \_\_\_\_\_

Lab Report No.: 05-0286 Date: 03/09/2005

Page: 9

Project Name:	CAC #03-10605L	Analysis:	CA LUFT Method for Total Fuel Hydrocarbons				
Project No:	05-0286	Method:	CATFH				
		Prep Meth:	SW3510				
Field ID:	050225-21-MW-1-P	Lab Samp ID:	05-0286-01				
Descr/Location:	MW-1	Rec'd Date:	02/28/2005				
Sample Date:	02/25/2005	Prep Date:	03/01/2005				
Sample Time:	1135	Analysis Date:	03/03/2005				
Matrix:	Water	QC Batch:	03025TPHDW				
Basis:	Wet	Notes:					
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil	
Diesel Fuel #2	0.016	0.05 PQL		ND	MG/L	1	

Approved by: \_\_\_\_\_

Date: \_\_\_\_\_

Lab Report No.: 05-0286 Date: 03/09/2005

Page: 10

Project Name: CAC #03-10605L		Analysis: CA LUFT Method for Total Fuel Hydrocarbons				
Project No: 05-0286		Method: CATFH				
		Prep Meth: SW3510				
Field ID: 050225-21-MW-2-P		Lab Samp ID: 05-0286-02				
Descr/Location: MW-2		Rec'd Date: 02/28/2005				
Sample Date: 02/25/2005		Prep Date: 03/01/2005				
Sample Time: 1230		Analysis Date: 03/03/2005				
Matrix: Water		QC Batch: 03025TPHDW				
Basis: Wet		Notes:				
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Diesel Fuel #2	0.016	0.05 PQL		ND	MG/L	1

Approved by: \_\_\_\_\_

Date: \_\_\_\_\_

Lab Report No.: 05-0286 Date: 03/09/2005

Page: 11

Project Name: CAC #03-10605L		Analysis: CA LUFT Method for Total Fuel Hydrocarbons				
Project No: 05-0286		Method: CATFH				
		Prep Meth: SW3510				
Field ID: 050255-21-MW-3-P		Lab Samp ID: 05-0286-03				
Descr/Location: MW-3		Rec'd Date: 02/28/2005				
Sample Date: 02/25/2005		Prep Date: 03/01/2005				
Sample Time: 1045		Analysis Date: 03/03/2005				
Matrix: Water		QC Batch: 03025TPHDW				
Basis: Wet		Notes:				
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Diesel Fuel #2	0.016	0.05 PQL		ND	MG/L	1

Approved by: \_\_\_\_\_

Date: \_\_\_\_\_

Lab Report No.: 05-0286 Date: 03/09/2005

Page: 12

Project Name: CAC #03-10605L		Analysis: CA LUFT Method for Total Fuel Hydrocarbons				
Project No: 05-0286		Method: CATFH				
		Prep Meth: SW3510				
Field ID: 050225-21-MW-4-D		Lab Samp ID: 05-0286-05				
Descr/Location: MW-4		Rec'd Date: 02/28/2005				
Sample Date: 02/25/2005		Prep Date: 03/01/2005				
Sample Time: 1400		Analysis Date: 03/03/2005				
Matrix: Water		QC Batch: 03025TPHDW				
Basis: Wet		Notes:				
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Diesel Fuel #2	0.016	0.05 PQL		ND	MG/L	1

Approved by: \_\_\_\_\_

Date: \_\_\_\_\_



Lab Report No.: 05-0286 Date: 03/09/2005

Page: 13

Project Name: CAC #03-10605L		Analysis: CA LUFT Method for Total Fuel Hydrocarbons				
Project No: 05-0286		Method: CATFH				
		Prep Meth: SW3510				
Field ID: 050225-21-MW-4-P		Lab Samp ID: 05-0286-04				
Descr/Location: MW-4		Rec'd Date: 02/28/2005				
Sample Date: 02/25/2005		Prep Date: 03/01/2005				
Sample Time: 1355		Analysis Date: 03/03/2005				
Matrix: Water		QC Batch: 03025TPHDW				
Basis: Wet		Notes:				
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Diesel Fuel #2	0.016	0.05 PQL		ND	MG/L	1

Approved by: \_\_\_\_\_

Date: \_\_\_\_\_

Lab Report No.: 05-0286 Date: 03/09/2005

Page: 14

Project Name: CAC #03-10605L		Analysis: CA LUFT Method for Total Fuel Hydrocarbons				
Project No: 05-0286		Method: CATFH				
		Prep Meth: SW3510				
Field ID: 050225-21-MW-5-P		Lab Samp ID: 05-0286-06				
Descr/Location: MW-5		Rec'd Date: 02/28/2005				
Sample Date: 02/25/2005		Prep Date: 03/01/2005				
Sample Time: 1255		Analysis Date: 03/03/2005				
Matrix: Water		QC Batch: 03025TPHDW				
Basis: Wet		Notes:				
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Diesel Fuel #2	0.016	0.05 PQL		ND	MG/L	1

Approved by: \_\_\_\_\_

Date: \_\_\_\_\_

Lab Report No.: 05-0286 Date: 03/09/2005

Page: 15

Project Name: CAC #03-10605L		Analysis: CA LUFT Method for Total Fuel Hydrocarbons				
Project No: 05-0286		Method: CATFH				
		Prep Meth: SW3510				
Field ID: 050255-21-MW-6-P		Lab Samp ID: 05-0286-07				
Descr/Location: MW-6		Rec'd Date: 02/28/2005				
Sample Date: 02/25/2005		Prep Date: 03/01/2005				
Sample Time: 1330		Analysis Date: 03/03/2005				
Matrix: Water		QC Batch: 03025TPHDW				
Basis: Wet		Notes:				
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Diesel Fuel #2	0.016	0.05 PQL		ND	MG/L	1

Approved by: \_\_\_\_\_

Date: \_\_\_\_\_

Lab Report No.: 05-0286 Date: 03/09/2005

Page: 16

Project Name: CAC #03-10605L		Analysis: CA LUFT Method for Total Fuel Hydrocarbons				
Project No: 05-0286		Method: CATFH				
		Prep Meth: SW3510				
Field ID: 050255-21-MW-6-E		Lab Samp ID: 05-0286-08				
Descr/Location: QCEB-6		Rec'd Date: 02/28/2005				
Sample Date: 02/25/2005		Prep Date: 03/01/2005				
Sample Time: 1300		Analysis Date: 03/03/2005				
Matrix: Water		QC Batch: 03025TPHDW				
Basis: Wet		Notes:				
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Diesel Fuel #2	0.016	0.05 PQL		ND	MG/L	1

Approved by: \_\_\_\_\_

Date: \_\_\_\_\_

Lab Report No.: 05-0286 Date: 03/09/2005

Page: 17

Project Name: CAC #03-10605L		Analysis: BTEX/Gasoline Range Organics (SW8020/8015)				
Project No: 05-0286		Method: SW8020F				
		Prep Meth: SW5030B				
Field ID: 050225-21-MW-1-P		Lab Samp ID: 05-0286-01				
Descr/Location: MW-1		Rec'd Date: 02/28/2005				
Sample Date: 02/25/2005		Prep Date: 03/02/2005				
Sample Time: 1135		Analysis Date: 03/02/2005				
Matrix: Water		QC Batch: 03025GBXW1				
Basis: Wet		Notes:				
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Gasoline Range Organics	7.34	50. PQL		69.	UG/L	1
Benzene	0.116	0.5 PQL		ND	UG/L	1
Toluene	0.180	0.5 PQL		ND	UG/L	1
Ethylbenzene	0.194	0.5 PQL		ND	UG/L	1
Xylenes	0.239	1.0 PQL		3.	UG/L	1

Approved by: \_\_\_\_\_

Date: \_\_\_\_\_

Lab Report No.: 05-0286 Date: 03/09/2005

Page: 18

Project Name: CAC #03-10605L	Analysis: BTEX/Gasoline Range Organics (SW8020/8015)
Project No: 05-0286	Method: SW8020F
	Prep Meth: SW5030B
Field ID: 050225-21-MW-2-P	Lab Samp ID: 05-0286-02
Descr/Location: MW-2	Rec'd Date: 02/28/2005
Sample Date: 02/25/2005	Prep Date: 03/02/2005
Sample Time: 1230	Analysis Date: 03/02/2005
Matrix: Water	QC Batch: 03025GBXW1
Basis: Wet	Notes:

Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Gasoline Range Organics	7.34	50. PQL		ND	UG/L	1
Benzene	0.116	0.5 PQL		ND	UG/L	1
Toluene	0.180	0.5 PQL		ND	UG/L	1
Ethylbenzene	0.194	0.5 PQL		ND	UG/L	1
Xylenes	0.239	1.0 PQL		ND	UG/L	1

Approved by: \_\_\_\_\_

Date: \_\_\_\_\_

Lab Report No.: 05-0286 Date: 03/09/2005

Page: 19

Project Name:	CAC #03-10605L	Analysis:	BTEX/Gasoline Range Organics (SW8020/8015)			
Project No:	05-0286	Method:	SW8020F			
		Prep Meth:	SW5030B			
Field ID:	050255-21-MW-3-P	Lab Samp ID:	05-0286-03			
Descr/Location:	MW-3	Rec'd Date:	02/28/2005			
Sample Date:	02/25/2005	Prep Date:	03/02/2005			
Sample Time:	1045	Analysis Date:	03/02/2005			
Matrix:	Water	QC Batch:	03025GBXW1			
Basis:	Wet	Notes:				
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Gasoline Range Organics	7.34	50. PQL		ND	UG/L	1
Benzene	0.116	0.5 PQL		ND	UG/L	1
Toluene	0.180	0.5 PQL		ND	UG/L	1
Ethylbenzene	0.194	0.5 PQL		ND	UG/L	1
Xylenes	0.239	1.0 PQL		ND	UG/L	1

Approved by: \_\_\_\_\_

Date: \_\_\_\_\_

Lab Report No.: 05-0286 Date: 03/09/2005

Page: 20

Project Name: CAC #03-10605L		Analysis: BTEX/Gasoline Range Organics (SW8020/8015)				
Project No: 05-0286		Method: SW8020F				
		Prep Meth: SW5030B				
Field ID: 050225-21-MW-4-D		Lab Samp ID: 05-0286-05				
Descr/Location: MW-4		Rec'd Date: 02/28/2005				
Sample Date: 02/25/2005		Prep Date: 03/02/2005				
Sample Time: 1400		Analysis Date: 03/02/2005				
Matrix: Water		QC Batch: 03025GBXW1				
Basis: Wet		Notes:				
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Gasoline Range Organics	7.34	50. PQL		ND	UG/L	1
Benzene	0.116	0.5 PQL		ND	UG/L	1
Toluene	0.180	0.5 PQL		ND	UG/L	1
Ethylbenzene	0.194	0.5 PQL		ND	UG/L	1
Xylenes	0.239	1.0 PQL		ND	UG/L	1

Approved by: \_\_\_\_\_

Date: \_\_\_\_\_



Lab Report No.: 05-0286 Date: 03/09/2005

Page: 21

Project Name:	CAC #03-10605L	Analysis:	BTEX/Gasoline Range Organics (SW8020/8015)				
Project No:	05-0286	Method:	SW8020F				
		Prep Meth:	SW5030B				
Field ID:	050225-21-MW-4-P	Lab Samp ID:	05-0286-04				
Descr/Location:	MW-4	Rec'd Date:	02/28/2005				
Sample Date:	02/25/2005	Prep Date:	03/02/2005				
Sample Time:	1355	Analysis Date:	03/02/2005				
Matrix:	Water	QC Batch:	03025GBXW1				
Basis:	Wet	Notes:					
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil	
Gasoline Range Organics	7.34	50. PQL		ND	UG/L	1	
Benzene	0.116	0.5 PQL		ND	UG/L	1	
Toluene	0.180	0.5 PQL		ND	UG/L	1	
Ethylbenzene	0.194	0.5 PQL		ND	UG/L	1	
Xylenes	0.239	1.0 PQL		ND	UG/L	1	

Approved by: \_\_\_\_\_

Date: \_\_\_\_\_

Lab Report No.: 05-0286 Date: 03/09/2005

Page: 22

Project Name: CAC #03-10605L  
Project No: 05-0286

Analysis: BTEX/Gasoline Range Organics (SW8020/8015)  
Method: SW8020F  
Prep Meth: SW5030B

Field ID: 050225-21-MW-5-P  
Descr/Location: MW-5  
Sample Date: 02/25/2005  
Sample Time: 1255  
Matrix: Water  
Basis: Wet

Lab Samp ID: 05-0286-06  
Rec'd Date: 02/28/2005  
Prep Date: 03/02/2005  
Analysis Date: 03/02/2005  
QC Batch: 03025GBXW1  
Notes:

Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Gasoline Range Organics	7.34	50. PQL		ND	UG/L	1
Benzene	0.116	0.5 PQL		ND	UG/L	1
Toluene	0.180	0.5 PQL		ND	UG/L	1
Ethylbenzene	0.194	0.5 PQL		ND	UG/L	1
Xylenes	0.239	1.0 PQL		ND	UG/L	1

Approved by: \_\_\_\_\_

Date: \_\_\_\_\_

Lab Report No.: 05-0286 Date: 03/09/2005

Page: 23

Project Name: CAC #03-10605L	Analysis: BTEX/Gasoline Range Organics (SW8020/8015)
Project No: 05-0286	Method: SW8020F
	Prep Meth: SW5030B
Field ID: 050255-21-MW-6-P	Lab Samp ID: 05-0286-07
Descr/Location: MW-6	Rec'd Date: 02/28/2005
Sample Date: 02/25/2005	Prep Date: 03/02/2005
Sample Time: 1330	Analysis Date: 03/02/2005
Matrix: Water	QC Batch: 03025GBXW1
Basis: Wet	Notes:

Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Gasoline Range Organics	7.34	50. PQL		ND	UG/L	1
Benzene	0.116	0.5 PQL		ND	UG/L	1
Toluene	0.180	0.5 PQL		ND	UG/L	1
Ethylbenzene	0.194	0.5 PQL		ND	UG/L	1
Xylenes	0.239	1.0 PQL		ND	UG/L	1

Approved by: \_\_\_\_\_

Date: \_\_\_\_\_

Lab Report No.: 05-0286 Date: 03/09/2005

Page: 24

Project Name: CAC #03-10605L		Analysis: BTEX/Gasoline Range Organics (SW8020/8015)				
Project No: 05-0286		Method: SW8020F				
		Prep Meth: SW5030B				
Field ID: 050255-21-MW-6-E		Lab Samp ID: 05-0286-08				
Descr/Location: QCEB-6		Rec'd Date: 02/28/2005				
Sample Date: 02/25/2005		Prep Date: 03/02/2005				
Sample Time: 1300		Analysis Date: 03/02/2005				
Matrix: Water		QC Batch: 03025GBXW1				
Basis: Wet		Notes:				
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Gasoline Range Organics	7.34	50. PQL		ND	UG/L	1
Benzene	0.116	0.5 PQL		ND	UG/L	1
Toluene	0.180	0.5 PQL		ND	UG/L	1
Ethylbenzene	0.194	0.5 PQL		ND	UG/L	1
Xylenes	0.239	1.0 PQL		ND	UG/L	1

Approved by: \_\_\_\_\_

Date: \_\_\_\_\_

# QA/QC Report Method Blank Summary

North State Environmental, South San Francisco, CA

Lab Report No.: 05-0286 Date: 03/09/2005

Page: 25

QC Batch: 03025GBXW1		Analysis: BTEX/Gasoline Range Organics	
Matrix: Water		Method: SW8020F	
Lab Samp ID: BLK		Prep Meth: SW5030B	
Analysis Date: 03/02/2005		Prep Date: 03/02/2005	
Basis: Wet		Notes:	

Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Gasoline Range Organics	7.34	50. PQL		ND	UG/L	1
Benzene	0.116	0.5 PQL		ND	UG/L	1
Toluene	0.180	0.5 PQL		ND	UG/L	1
Ethylbenzene	0.194	0.5 PQL		ND	UG/L	1
Xylenes	0.239	1.0 PQL		ND	UG/L	1

# QA/QC Report

## Matrix Spike/Duplicate Matrix Spike Summary

North State Environmental, South San Francisco, CA

Lab Report No.: 05-0286 Date: 03/09/2005

Page: 26

QC Batch: 03025GBXW1  
Matrix: Water  
Lab Samp ID: 0286-08MS  
Basis: Wet

Project Name: CAC #03-10605L  
Project No.: 05-0286  
Field ID: 050255-21-MW-6-E  
Lab Ref ID: 05-0286-08

Analyte	Analysis Method	Spike Level		Sample Result	Spike Result		Units		% Recoveries			Acceptance Criteria		
		MS	DMS		MS	DMS			MS	DMS	RPD	% Rec	MSA	RPD
Benzene	SW8020F	100.0	100.0	ND	90.4	84.8	UG/L	ww	90.4	84.8	6.4	130-70	MSA	30MSP
Ethylbenzene	SW8020F	100.0	100.0	ND	109.	111.	UG/L	ww	109	111	1.8	130-70	MSA	30MSP
Gasoline Range Organics	SW8020F	1000.	1000.	ND	1240.	1250.	UG/L	ww	124	125	0.80	130-70	MSA	30MSP
Toluene	SW8020F	100.0	100.0	ND	106.	107.	UG/L	ww	106	107	0.94	130-70	MSA	30MSP
Xylenes	SW8020F	300.0	300.0	ND	324.	326.	UG/L	ww	108	109	0.92	130-70	MSA	30MSP

# QA/QC Report Method Blank Summary

North State Environmental, South San Francisco, CA

Lab Report No.: 05-0286 Date: 03/09/2005

Page: 27

QC Batch: 03025TPHDW	Analysis: CA LUFT Method for Total Fuel
Matrix: Water	Method: CATFH
Lab Samp ID: WBLK	Prep Meth: SW3510
Analysis Date: 03/02/2005	Prep Date: 03/01/2005
Basis: Wet	Notes:

Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Diesel Fuel #2	0.016	0.05 PQL		ND	MG/L	1

# QA/QC Report

## Matrix Spike/Duplicate Matrix Spike Summary

North State Environmental, South San Francisco, CA

Lab Report No.: 05-0286 Date: 03/09/2005

Page: 28

QC Batch: 03025TPHDW  
Matrix: Water  
Lab Samp ID: 0286-06 MS  
Basis: Wet

Project Name: CAC #03-10605L  
Project No.: 05-0286  
Field ID: 050225-21-MW-5-P  
Lab Ref ID: 05-0286-06

Analyte	Analysis Method	Spike Level		Sample Result	Spike Result		Units	% Recoveries			Acceptance Criteria		
		MS	DMS		MS	DMS		MS	DMS	RPD	% Rec	MSA	RPD
Diesel Fuel #2	CATFH	2.50	2.50	ND	2.8	2.82	MG/L ww	112	113	0.89	115-64	MSA	25MSP



# QA/QC Report Method Blank Summary

North State Environmental, South San Francisco, CA

Lab Report No.: 05-0286    Date: 03/09/2005

Page: 29

QC Batch: 03045MLIST	Analysis: Volatile Organic Compounds by GC/MS Fuel					
Matrix: Water	Method: 8260FA					
Lab Samp ID: VBLK	Prep Meth: SW5030B					
Analysis Date: 03/04/2005	Prep Date: 02/24/2005					
Basis: Wet	Notes:					
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Methyl-tert-butyl ether (MTBE)	0.342	0.5 PQL		ND	UG/L	1
Ethyl tert-butyl ether (ETBE)	0.258	1. PQL		ND	UG/L	1
tert-Amyl methyl ether (TAME)	0.358	1. PQL		ND	UG/L	1
Di-isopropyl ether (DIPE)	0.251	0.5 PQL		ND	UG/L	1
tert-Butyl alcohol (TBA)	3.250	10. PQL		ND	UG/L	1
Ethanol (EtOH)	23.43	50. PQL		ND	UG/L	1
Benzene	0.153	0.5 PQL		ND	UG/L	1
Toluene	0.130	0.5 PQL		ND	UG/L	1
Chlorobenzene	0.113	1. PQL		ND	UG/L	1
1,1-Dichloroethene	0.330	0.5 PQL		ND	UG/L	1
Trichloroethene (TCE)	0.320	0.5 PQL		ND	UG/L	1
SURROGATE AND INTERNAL STANDARD RECOVERIES:						
4-Bromofluorobenzene		85-115 SLSA		101%		1
Toluene-d8		85-115 SLSA		102%		1
Dibromofluoromethane		85-115 SLSA		100%		1
1,2-Dichloroethane-d4		85-115 SLSA		106%		1

North State Environmental, South San Francisco, CA

Page: 30

Project Name: Lab Generated or Non COE Sample  
Project No.: Lab Generated or Non COE Sample  
Field ID: Lab Generated or Non COE Sample  
Lab Ref ID: 05-0286-07

GN: Surrogate recovery is outside of control limits



North State Labs

815 Dubuque Avenue • South San Francisco, CA 94080 • (650) 266-4563 • FAX (650) 266-4560

CA ELAP # 1753

SAMPLE RECEIPT CHECKLIST

Client Name: Environ

Ref/Subm No: 05-0286

Date: 2.28.05

Checked By: SS

Matrix: Soil:      Water: X Other:     

If Received via Shipment ( If dropped off in person this section does not apply):

Carrier Name:     

Shipping Container/Cooler In Good Condition? Yes:      No:     

Custody Seals Intact on Shipping Container? Yes:      No:     

Custody Seals intact on sample containers? Yes:      No:      Not Present: X

Chain of Custody present? Yes: X No:     

Chain of Custody Signatures & Date/Time correct? Yes: X No:     

Chain of custody agrees with sample labels? Yes: X No:     

Samples in proper containers? Yes: X No:     

Sample containers Intact? Yes: X No:     

Sufficient sample volume for indicated tests? Yes: X No:     

All Samples received within holding times? Yes: X No:     

Temperature Blank present? Record Temp if present. Yes:      No: X Temp:     

For water samples- VOAS have zero headspace? Yes: X No:      NA:     

For water samples- pH acceptable on receipt? Yes: X No:      NA:     

pH adjusted - Preservative used: HNO<sub>3</sub>:      HCl: X H<sub>2</sub>SO<sub>4</sub>:      NaOH:      ZnOAc:       
Lot:     

Corrective Action Record:     

Client Contacted:      Date Contacted:      Person Contacted:     

Contacted by:      Regarding:     

Comments:     

Corrective Action:

## CHAIN-of-CUSTODY FORM

05-0286

Sheet 1 of 1  
5820 Shellmound St., Suite 700  
Emeryville, California 94608  
(510) 655-7400

PROJECT NAME: <u>CAC</u>		COLLECTION DATE 2005	COLLECTED BY (Initials)	MATRIX	TOTAL NO. OF CONTAINERS	ANALYSES: Sample Time TPH-gas, BTEX, * Fuel oxygenates (82005) TPH Diesel (8005M)										FIELD POINT ID#	STANDARD STAT A T COMMENTS
CASE NO.: <u>03-10605L</u>																	
ENVIRON SAMPLE ID.																	
050225-21-MW-1-P		2/25	JH	Water	6	1355	X	X					MW-1		Please e-mail		
050225-21-MW-2-P		2/25	JH	Water	6	1230	X	X					MW-2		results to Jill Kurtz at		
050225-21-MW-3-P		2/25	JH	Water	6	1045	X	X					MW-3		j.kurtz@environcorp.com		
050225-21-MW-4-P		2/25	JH	Water	6	1355	X	X					MW-4		fax to: 510.655.9517		
050225-21-MW-4-D		2/25	JH	Water	6	1400	X	X					MW-4		Geotracker Global ID		
050225-21-MW-5-P		2/15	JH	Water	10	1255	X	X					MW-5		TO 605500132		
050225-21-MW-6-P		2/25	JH	Water	6	1330	X	X					MW-6		* Fuel oxygenates to include:		
050225-21-MW-6-E		2/25	JH	Water	6	1300	X	X					QCEB-6		MTBE, TBA, ETBE, TAME, DPE, 1,2-DCA, EDB		
TOTAL		X	X	X	52		X	X							Ethanol @ DLg 50ug/L		

Relinquished by:

[Signature]

Date:

2/28/05

Time:

1510

Received by:

[Signature]

Company:

NSLAB

Date:

2/28/05

Time:

1510

## **APPENDIX C**

**Analytical Laboratory Report for  
Offsite Irrigation Well Located at  
2412 Foothill Boulevard, Calistoga, CA**

---

## Laboratory Report Project Overview

---

DF 1.2a

Laboratory:	North State Environmental, South San Francisco, CA
Lab Report Number:	05-0287
Project Name:	CAC #03-10605L
Work Order Number:	05-0287
Control Sheet Number:	T0605500132

## Case Narrative

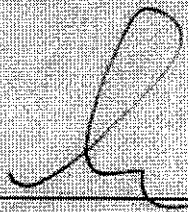
North State Environmental, South San Francisco, CA

Report Date: 03/09/2005  
Report Number: 05-0287

Project: CAC #03-10605L  
Order #: 05-0287

One water sample was received under chain of custody control for the analysis of gasoline and diesel by method 8015B, BTEX by method 8021B and fuel oxygenates by method 8260B. No errors were noted. The LCS/LCD results were reported for gasoline and BTEX by method 8015B/8021B as the spikes for this project were reported under job no 05-0286, run the next day. All QA/QC requirements were met.

Approved by: \_\_\_\_\_



Date: \_\_\_\_\_

April 16, 2005

## Report Summary

Labreport	Sampid	Labsampid	Mtrx	QC	Anmcode	Exmcode	Eogdate	Extdate	Anadate	Lablotctl	Run	Sub
05-0287	050225-21-WSW-1-P	05-0287-01	W	CS	8260FA	SW5030B	02/25/200	03/02/200	03/02/200	03025MLIST	1	
							5	5	5			
05-0287	050225-21-WSW-1-P	05-0287-01	W	CS	CATFH	SW3510	02/25/200	03/01/200	03/03/200	03025TPHDW	1	
							5	5	5			
05-0287	050225-21-WSW-1-P	05-0287-01	W	CS	SW8020F	SW5030B	02/25/200	03/01/200	03/02/200	03015GBXW1	1	
							5	5	5			
		05-0287-01	W	NC	8260FA	SW5030B	//	03/02/200	03/02/200	03025MLIST	1	
								5	5			
		LCSD	W	BD1	SW8020F	SW5030B	//	03/01/200	03/01/200	03015GBXW1	1	
								5	5			
		WLCS	W	BD1	CATFH	SW3510	//	03/01/200	03/02/200	03025TPHDW	1	
								5	5			
		LCS	W	BS1	SW8020F	SW5030B	//	03/01/200	03/01/200	03015GBXW1	1	
								5	5			
		WLCS	W	BS1	CATFH	SW3510	//	03/01/200	03/02/200	03025TPHDW	1	
								5	5			
		BLK	W	LB1	SW8020F	SW5030B	//	03/01/200	03/01/200	03015GBXW1	1	
								5	5			
		VBLK	W	LB1	8260FA	SW5030B	//	02/24/200	03/02/200	03025MLIST	1	
								5	5			
		WBLK	W	LB1	CATFH	SW3510	//	03/01/200	03/02/200	03025TPHDW	1	
								5	5			
		0287-01MS	W	MS1	8260FA	SW5030B	//	03/02/200	03/02/200	03025MLIST	1	
								5	5			
		0287-01MSD	W	SD1	8260FA	SW5030B	//	03/02/200	03/02/200	03025MLIST	1	
								5	5			



Lab Report No.: 05-0287 Date: 03/09/2005

Page: 1

Project Name: CAC #03-10605L		Analysis: Volatile Organic Compounds by GC/MS Fuel				
Project No: 05-0287		Method: 8260FA				
		Prep Meth: SW5030B				
Field ID: 050225-21-WSW-1-P		Lab Samp ID: 05-0287-01				
Descr/Location: WSW-1		Rec'd Date: 02/28/2005				
Sample Date: 02/25/2005		Prep Date: 03/02/2005				
Sample Time: 1155		Analysis Date: 03/02/2005				
Matrix: Water		QC Batch: 03025MLIST				
Basis: Wet		Notes:				
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Methyl-tert-butyl ether (MTBE)	0.342	0.5 PQL		ND	UG/L	1
Ethyl tert-butyl ether (ETBE)	0.258	1. PQL		ND	UG/L	1
tert-Amyl methyl ether (TAME)	0.358	1. PQL		ND	UG/L	1
Di-isopropyl ether (DIPE)	0.251	0.5 PQL		ND	UG/L	1
tert-Butyl alcohol (TBA)	3.250	10. PQL		ND	UG/L	1
1,2-Dichloroethane	0.217	1. PQL		ND	UG/L	1
1,2-Dibromoethane	0.356	0.5 PQL		ND	UG/L	1
Ethanol (EtOH)	23.425	50. PQL		ND	UG/L	1
SURROGATE AND INTERNAL STANDARD RECOVERIES:						
4-Bromofluorobenzene		85-115 SLSA		100%		1
Toluene-d8		85-115 SLSA		101%		1
Dibromofluoromethane		85-115 SLSA		99%		1
1,2-Dichloroethane-d4		85-115 SLSA		93%		1

Approved by: \_\_\_\_\_

Date: \_\_\_\_\_

Lab Report No.: 05-0287 Date: 03/09/2005

Page: 2

Project Name: CAC #03-10605L		Analysis: CA LUFT Method for Total Fuel Hydrocarbons				
Project No: 05-0287		Method: CATFH				
		Prep Meth: SW3510				
Field ID: 050225-21-WSW-1-P		Lab Samp ID: 05-0287-01				
Descr/Location: WSW-1		Rec'd Date: 02/28/2005				
Sample Date: 02/25/2005		Prep Date: 03/01/2005				
Sample Time: 1155		Analysis Date: 03/03/2005				
Matrix: Water		QC Batch: 03025TPHDW				
Basis: Wet		Notes:				
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Diesel Fuel #2	0.016	0.05 PQL		ND	MG/L	1

Approved by: \_\_\_\_\_

Date: \_\_\_\_\_

Lab Report No.: 05-0287 Date: 03/09/2005

Page: 3

Project Name: CAC #03-10605L		Analysis: BTEX/Gasoline Range Organics (SW8020/8015)				
Project No: 05-0287		Method: SW8020F				
		Prep Meth: SW5030B				
Field ID: 050225-21-WSW-1-P		Lab Samp ID: 05-0287-01				
Descr/Location: WSW-1		Rec'd Date: 02/28/2005				
Sample Date: 02/25/2005		Prep Date: 03/01/2005				
Sample Time: 1155		Analysis Date: 03/02/2005				
Matrix: Water		QC Batch: 03015GBXW1				
Basis: Wet		Notes:				
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Gasoline Range Organics	7.34	50. PQL		ND	UG/L	1
Benzene	0.116	0.5 PQL		ND	UG/L	1
Toluene	0.180	0.5 PQL		ND	UG/L	1
Ethylbenzene	0.194	0.5 PQL		ND	UG/L	1
Xylenes	0.239	1.0 PQL		ND	UG/L	1

Approved by: \_\_\_\_\_

Date: \_\_\_\_\_

# QA/QC Report

## Method Blank Summary

North State Environmental, South San Francisco, CA

Lab Report No.: 05-0287 Date: 03/09/2005

Page: 4

QC Batch: 03015GBXW1	Analysis: BTEX/Gasoline Range Organics
Matrix: Water	Method: SW8020F
Lab Samp ID: BLK	Prep Meth: SW5030B
Analysis Date: 03/01/2005	Prep Date: 03/01/2005
Basis: Wet	Notes:

Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Gasoline Range Organics	7.34	50. PQL		ND	UG/L	1
Benzene	0.116	0.5 PQL		ND	UG/L	1
Toluene	0.180	0.5 PQL		ND	UG/L	1
Ethylbenzene	0.194	0.5 PQL		ND	UG/L	1
Xylenes	0.239	1.0 PQL		ND	UG/L	1

# QA/QC Report

## Blank Spike/Duplicate Blank Spike Summary

North State Environmental, South San Francisco, CA

Lab Report No.: 05-0287 Date: 03/09/2005

Page: 5

QC Batch: 03015GBXW1

Matrix: Water

Lab Samp ID: LCS

Analyte	Analysis Method	Spike Level		Spike Result		Units	% Recoveries			Acceptance Criteria		
		LCS	LCD	LCS	LCD		LCS	LCD	RPD	%Rec	MSA	RPD
Benzene	SW8020F	100.	100.	88.8	92.4	UG/L ww	88.8	92.4	4.0	130-70	MSA	30MSP
Ethylbenzene	SW8020F	100.	100.	106.	106.	UG/L ww	106	106	0.00	130-70	MSA	30MSP
Gasoline Range Organics	SW8020F	1000.	1000.	1160.	1210.	UG/L ww	116	121	4.2	130-70	MSA	30MSP
Toluene	SW8020F	100.	100.	102.	105.	UG/L ww	102	105	2.9	130-70	MSA	30MSP
Xylenes	SW8020F	300.	300.	312.	321.	UG/L ww	104	107	2.8	130-70	MSA	30MSP

# QA/QC Report Method Blank Summary

North State Environmental, South San Francisco, CA

Lab Report No.: 05-0287    Date: 03/09/2005

Page: 6

QC Batch: 03025MLIST		Analysis: Volatile Organic Compounds by GC/MS Fuel				
Matrix: Water		Method: 8260FA				
Lab Samp ID: VBLK		Prep Meth: SW5030B				
Analysis Date: 03/02/2005		Prep Date: 02/24/2005				
Basis: Wet		Notes:				
Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Methyl-tert-butyl ether (MTBE)	0.342	0.5 PQL		ND	UG/L	1
Ethyl tert-butyl ether (ETBE)	0.258	1. PQL		ND	UG/L	1
tert-Amyl methyl ether (TAME)	0.358	1. PQL		ND	UG/L	1
Di-isopropyl ether (DIPE)	0.251	0.5 PQL		ND	UG/L	1
tert-Butyl alcohol (TBA)	3.250	10. PQL		ND	UG/L	1
Ethanol (EtOH)	23.43	50. PQL		ND	UG/L	1
Benzene	0.153	0.5 PQL		ND	UG/L	1
Toluene	0.130	0.5 PQL		ND	UG/L	1
Chlorobenzene	0.113	1. PQL		ND	UG/L	1
1,1-Dichloroethene	0.330	0.5 PQL		ND	UG/L	1
Trichloroethene (TCE)	0.320	0.5 PQL		ND	UG/L	1
SURROGATE AND INTERNAL STANDARD RECOVERIES:						
4-Bromofluorobenzene		85-115 SLSA		100%		1
Toluene-d8		85-115 SLSA		101%		1
Dibromofluoromethane		85-115 SLSA		94%		1
1,2-Dichloroethane-d4		85-115 SLSA		95%		1

# QA/QC Report

## Matrix Spike/Duplicate Matrix Spike Summary

North State Environmental, South San Francisco, CA

Lab Report No.: 05-0287 Date: 03/09/2005

Page: 7

QC Batch: 03025MLIST  
Matrix: Water  
Lab Samp ID: 0287-01MS  
Basis: Wet

Project Name: Lab Generated or Non COE Sample  
Project No.: Lab Generated or Non COE Sample  
Field ID: Lab Generated or Non COE Sample  
Lab Ref ID: 05-0287-01

Analyte	Analysis Method	Spike Level		Sample Result	Spike Result		Units	% Recoveries			Acceptance Criteria		
		MS	DMS		MS	DMS		MS	DMS	RPD	% Rec	MSA	RPD
1,1-Dichloroethene	8260FA	20.0	20.0	ND	21.4	22.2	UG/L ww	107	111	3.7	130-70	MSA	30MSP
Benzene	8260FA	20.0	20.0	ND	22.8	22.9	UG/L ww	114	115	0.87	130-70	MSA	30MSP
Chlorobenzene	8260FA	20.	20.	ND	19.	20.	UG/L ww	95.0	100	5.1	130-70	MSA	30MSP
Toluene	8260FA	20.0	20.0	ND	20.8	20.9	UG/L ww	104	105	0.96	130-70	MSA	30MSP
Trichloroethene (TCE)	8260FA	20.0	20.0	ND	15.7	14.9	UG/L ww	78.5	74.5	5.2	130-70	MSA	30MSP
1,2-Dichloroethane-d4	8260FA	100.	100.	93.	100.	98.	PERCENT ww	100	98.0	2.0	115-85	SLSA	30SLSP
4-Bromofluorobenzene	8260FA	100.	100.	100.	99.	101.	PERCENT ww	99.0	101	2.0	115-85	SLSA	30SLSP
Dibromofluoromethane	8260FA	100.	100.	99.	100.	102.	PERCENT ww	100	102	2.0	115-85	SLSA	30SLSP
Toluene-d8	8260FA	100.	100.	101.	103.	102.	PERCENT ww	103	102	0.98	115-85	SLSA	30SLSP

# QA/QC Report Method Blank Summary

North State Environmental, South San Francisco, CA

Lab Report No.: 05-0287 Date: 03/09/2005

Page: 8

QC Batch: 03025TPHDW	Analysis: CA LUFT Method for Total Fuel
Matrix: Water	Method: CATFH
Lab Samp ID: WBLK	Prep Meth: SW3510
Analysis Date: 03/02/2005	Prep Date: 03/01/2005
Basis: Wet	Notes:

Analyte	Det Limit	Rep Limit	Note	Result	Units	Pvc Dil
Diesel Fuel #2	0.016	0.05 PQL		ND	MG/L	1



# QA/QC Report

## Blank Spike/Duplicate Blank Spike Summary

North State Environmental, South San Francisco, CA

Lab Report No.: 05-0287 Date: 03/09/2005

Page: 9

QC Batch: 03025TPHDW Matrix: Water Lab Samp ID: WLCS										
Analyte	Analysis Method	Spike Level		Spike Result		Units	% Recoveries			Acceptance Criteria
		LCS	LCD	LCS	LCD		LCS	LCD	RPD	%Rec RPD
Diesel Fuel #2	CATFH	2.5	2.5	2.72	2.75	MG/L ww	109	110	0.91	115-64 MSA 25MSP



North State Labs

CA ELAP # 1753

815 Dubuque Avenue • South San Francisco, CA 94080 • (650) 266-4563 • FAX (650) 266-4560

SAMPLE RECEIPT CHECKLIST

Client Name: Environ

Ref/Subm No: 05-0287

Date: 2-28-05

Checked By: SS

Matrix: Soil: \_\_\_\_\_ Water: X Other: \_\_\_\_\_

If Received via Shipment ( If dropped off in person this section does not apply):

Carrier Name: \_\_\_\_\_

Shipping Container/Cooler In Good Condition? Yes: \_\_\_\_\_ No: \_\_\_\_\_

Custody Seals Intact on Shipping Container? Yes: \_\_\_\_\_ No: \_\_\_\_\_

Custody Seals intact on sample containers? Yes: \_\_\_\_\_ No: \_\_\_\_\_ Not Present: X

Chain of Custody present? Yes: X No: \_\_\_\_\_

Chain of Custody Signatures & Date/Time correct? Yes: X No: \_\_\_\_\_

Chain of custody agrees with sample labels? Yes: X No: \_\_\_\_\_

Samples in proper containers? Yes: X No: \_\_\_\_\_

Sample containers intact? Yes: X No: \_\_\_\_\_

Sufficient sample volume for indicated tests? Yes: X No: \_\_\_\_\_

All Samples received within holding times? Yes: X No: \_\_\_\_\_

Temperature Blank present? Record Temp if present. Yes: \_\_\_\_\_ No: X Temp: \_\_\_\_\_

For water samples- VOAS have zero headspace? Yes: X No: \_\_\_\_\_ NA: \_\_\_\_\_

For water samples- pH acceptable on receipt? Yes: X No: \_\_\_\_\_ NA: \_\_\_\_\_

pH adjusted - Preservative used: HNO<sub>3</sub>: \_\_\_\_\_ HCl: X H<sub>2</sub>SO<sub>4</sub>: \_\_\_\_\_ NaOH: \_\_\_\_\_ ZnOAc: \_\_\_\_\_  
Lot: \_\_\_\_\_

Corrective Action Record:

Client Contacted: \_\_\_\_\_ Date Contacted: \_\_\_\_\_ Person Contacted: \_\_\_\_\_

Contacted by: \_\_\_\_\_ Regarding: \_\_\_\_\_

Comments: \_\_\_\_\_

Corrective Action: \_\_\_\_\_

# ENVIRON

Counsel in Health and Environmental Science

## CHAIN-of-CUSTODY FORM

Sheet / Of /  
5820 Shellmound St., Suite 700  
Emeryville, California 94608  
(510) 655-7400

05-0287

PROJECT NAME: <u>CAC</u>	COLLECTION DATE	COLLECTED BY (Initials)	MATRIX	TOTAL NO. OF CONTAINERS	ANALYSES: SAMPLE TIME	FIELDPOINT ID.	COMMENTS
CASE NO.: <u>05-0005L</u>	2005	JEL	Water	6	1155	WSW-1	STANDARD 5-DAY TAT
ENVIRON SAMPLE ID.							
050225-21-WSW-1-P	2/25	JEL	Water	6	1155	WSW-1	Please fix e-mail results to Bill Kurtz at: bkurtz@environcorp.com Fax at: 510.655.9517 Geotracker Global ID: TDL05500132 *Fuel oxygenates to include: MTBE, TBA, ETBE, TAME, DPE, 1,2-DCA, EDB? Ethanol @ a DL of 50 mg/L
TOTAL	X	X	X	6	1	1	

Relinquished by:

Date:

Time:

Received by:

Company:

Date:

Time:

2/28/05

1510

NS LABS

2/28/05

1510